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the Sea Swallow

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OF THE ROYAL NAVAL
BIRD WATCHING SOCIETY

PUBLISHED 1981

ROYAL NAVAL BIRDWATCHING SOCIETY

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Completed record forms for seabirds should be sent to Stephen Chapman, and for Landbirds to the Chairman.

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For details of local representatives and other useful addresses see inside back cover.

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Line drawings: Peter Harrison

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FOREWORD

The secret of success for any voluntary society organisation is to keep up the momentum. Like a bicycle, if movement stops the whole thing collapses. Fortunately the momentum of the Royal Naval Birdwatching Society is being well kept up. Commander Michael Casement, the new Chairman, ably supported by our Secretary Winton Maclure, is now fully in the chair and already has a good grasp of the job. Without making any violent changes he is keeping the machine going well and carrying on Gerald Tuck's fine work.

Over the years the R.N.B.W.S. has built up a wide reputation for careful observation and analysis of the wanderings of ocean birds in all parts of the world. This has been brought about mostly by the many skilled R.N.B.W.S. observers who have sent in their reports, which have been fully analysed and documented. It is, however, not the skilled observers alone who have contributed. The unskilled birdwatchers who conduct their interesting and harmless hobby at sea make a great contribution, while enjoying themselves at the same time.

This latter group of members form the large majority of the membership and needs every encouragement. To continue thriving the society seeks more and more active service members from both the Royal and Merchant Navies, people who will find much enjoyment through the simple pastime of noticing birds at sea and recording them. The experts which the society requires will inevitably float to the top of the main mass of members. But, it is an ever increasing membership of all sorts of seagoers, be they novices or experienced birdwatchers, that we would like to see in the society, both for the good of the society itself and to give pleasure to many more seagoing folk, particularly younger ones.

Our new Chairman, I know, shares these views and we should help him by our own efforts to enrol as many new members as possible.

Good birdwatching in 1981!

NIGEL HENDERSON, *President*

BLACK-BROWED ALBATROSS *Diomedea melanophris*
(H.M.S. *Dido* in background) Great Australian Bight 1979
Photo: C.P.O. T. H. Hunter, R.N.

EDITORIAL

I owe an apology to all readers for the late appearance of *Sea Swallow* this year, but from the wealth of material included in this volume it will be seen that it has been a major Editorial task for me while also fully employed in an active job. In this I have been greatly helped with advice from Dr W. R. P. (Bill) Bourne, and I give special thanks to Stephen Chapman who has nobly taken on the formidable task of analysis of seabird reports which have been sadly missing in recent years. Stephen has also taken on the responsibility of Assistant Editor, with special interest in seabirds, leaving me to concentrate on landbirds.

I have taken note of the wealth of advice in response to the very helpful replies to my questionnaire on the subject, and have attempted to broaden the appeal of articles by including both general interest subjects for the amateur and also scientific papers for the more serious and conscientious observers. I have attempted also to restore the balance between seabirds and landbirds, to make more economical use of the space available, and at the same time to preserve the style and presentation of *Sea Swallow* which was the almost unanimous view reflected in your replies.

Meanwhile your reports from sea continue to pour in from a variety of sources for which many thanks. I continue to be indebted to Mr Brown of the Meteorological Office for his extracts from Met Logs and to Gerald Tuck who makes initial identifications and comment on them. These reports keep Stephen Chapman and I very busy, especially while we are both learning our new responsibilities. We would make a special plea on two points:

Firstly, please forward completed record forms and requests for record forms as requested inside the front cover. This saves much in terms of time, postage costs and confusion.

Secondly, the standard of reports and detailed descriptions in many reports are inadequate for confirmation of identification. A large number of species of seabird are almost impossible to identify positively by visual means alone (and many of the recognition features and distributions given in Captain Tuck's *Field Guide to the Seabirds of Britain and the World* are open to some debate worldwide) so it is vital to be more meticulous with records, to be more self-critical, and where there is any possibility of doubt to say so. Without wishing to detract one iota from Captain Tuck's achievement which has earned the admiration of us all, this has now become MORE important not less; if we accept everything in the *Field Guide* at face value we will all be guilty of compounding for future generations any errors there may be. Remember, this book is the accumulation of many years' observations by many R.N.B.W.S. observers, like you and I, and we are all fallible humans !

Good luck for 1981. Please keep in touch and send your contributions for *Sea Swallow* to me in good time (see inside back cover).

MICHAEL CASEMENT, *Editor*

REPORTING OF SEABIRD OBSERVATIONS

By Stephen E. Chapman, M.B.O.U.

During the early years of the Society's development it became apparent that there was a need to provide for a method of efficiently recording and subsequently analysing a growing quantity of members' seabird observations. To meet this need the Census Sheet - Sea Birds was introduced. The format was designed to provide information on distribution without having to document every separate sighting individually. If a sharp lookout is maintained, and the Census Sheet properly compiled, these provide a unique source of distribution data and could well be used to determine relative densities of seabird distributions in different seasons or sea areas. Since the introduction of the Census Sheet the Sea Bird Report Sheet has also been maintained for those who prefer to submit data in this manner, and for isolated observations or less experienced observers it is probably a more satisfactory recording method.

In going through members' records one is immediately impressed by the care and detail that support many of the submissions, especially from the Society's more experienced members. Both forms of record sheets provide space for recording notes on identification, unusual behaviour, local conditions and other factors the observer wishes to record. To lend conviction to one's observations it is essential that sightings of unusual birds, unfamiliar species, or birds out of their usual range are substantiated with a description detailing why the bird is identified as such and how it is separated from similar species. Notes made at the time are indispensable in this respect. Sketches can be very valuable aids even if one is not particularly artistic!

The notes on Seabird Reports on page 5 are based on about 250 pages of records. About 10% of these are on Census Sheets which greatly assist in providing the maximum amount of data with economy of effort in recording and subsequent analysis, for example, see Fig. 1. I would like to appeal to members to use the Census Sheet whenever possible and to bear in mind the above comments when documenting their observations.

If members have any comments on the design or format of our report forms, then I should be pleased to hear from them.

ROYAL NAVAL BIRDWATCHING SOCIETY

CENSUS SHEET—SEA BIRDS
(1962)

Ref. No.: 45/80 Sheet No.: 5B

Ack.:

Plotted: ✓

Year 1962 Observer (Caps) P. W. G. CHILMAN HMS/SS/MV: LEONIA

Voyage/Locality: From/At RAS TANNURAH To FREEPORT, BAHAMAS Ocean INDIAN

This Form is an alternative to the Standard Sea Report Sheet. It should provide information on the distribution of the sea birds without requiring every separate sighting to be entered individually. Each sheet is for use in THE SAME OCEAN OR PORT OF CALL. START A NEW SHEET FOR EACH NEW OCEAN OR NEW PORT. If extra sheets are needed for the same ocean, label sheets Ia, Ib, etc. *COUNT EVERY BIRD SEEN DURING A SPECIFIED PERIOD AND RECORD TOTAL COUNT OF EACH SPECIES.* Always quote P—Positive or U—Uncertain. When possible, additional code letters should be used to amplify reports: A—adult, I—immature, S—singly, G—in groups, X—flying, W—on water, F—feeding, M—in moult, N—Notes in Part II.

IMPORTANT—Use Part II on back for notes on observations

Serial No.	Date	Period of Observation	Position Lat/Long Range/Bog. Land	Wind Direction Force	Air/Sea Temp. Centi-grade	Species (Common Name) and Numbers seen during period of Observation	Notes on Back
Ex. 1	.....	From	.....	.....	Air/Sea	12 P. Northern Gannets (8A, 4I, G, X, F), 35 P. Kittiwakes (25A, 10I, X, some M), 1 P. Great Skua 3 P. Sooty Shearwaters (S,X). 1 U. Sooty Shearwater (X). [(X)	N
		To					
120	16th Sept	1020 - 1120	1m 17°39'S 39°53'E	E'ly 2	30/26° 1019	1 P. BRIDLED TERN (X) b. Slight sea, moderate swell	N
121	16th Sept	1630 - 1820	1m 18°55'S 39°06'E	Light Airs	29/22° 1017·3	No Birds b. Rippled sea, moderate swell	
122	17th Sept	0800	22°19'S 37°06'E	NW 2	24/24° 1018	2 P. PINTADO PETRELS (G. X) b. Slight sea, moderate swell	
123	17th Sept	1/10 - 1750	1m 24°23'S 35°27'E	Light Airs	27/23° 1014	No Birds b. Rippled sea, moderate swell	
124	18th Sept	1440 - 1740	1m 29°07'S 32°20'E	SE/SSE 3	20/23° 1014	10 P. WHITE CHINNED PETREL (S. G. X) 1 P. SOOTY SHEARWATER (X) At least 12 P. PINTADO PETREL (G. X) b. Slight sea, moderate swell	N
125	19th Sept	0845 - 0945	0m 32°18'S 29°39'E	SE 3	21°/21° 1016	5 P. WANDERING ALBATROSS (S.G.X) At least 10 P. PINTADO PETREL (G. X) b. Slight sea, moderate swell	N
126	19th Sept	1620 - 1740	1m 33°31'S 27°42'E	E×S 3	22°/22° 1015	3 P. WANDERING ALBATROSS (S.G.X) 1 P. YELLOW NOSED ALBATROSS (X) 1 P. GIANT PETREL (X) 12 P. WHITE CHINNED PETREL (S.G.X) At least 25 P. PINTADO PETREL (G.X) 1 P. SOOTY SHEARWATER (X) b. Slight sea, moderate swell	N
127	20th Sept	1600 - 1730	1m 34°46'S 21°14'E	E'ly 2	20/17° 1010	2 P. GREY ALBATROSS (S.X) 2 P. GIANT PETREL (S.G.X) 7 P. WHITE CHINNED PETREL (S.G.X. IW) 9 P. PINTADO PETREL (S.G.X. IW) 2 P. SOOTY SHEARWATER (S.X) 20 P. CAPE PIGEON (S.G.X. IW) 2 P. GREAT SKUA (S.X) M) 3 P. TERNS (S.G.X) b. Slight sea, moderate swell.	N

BOOK REVIEWS

By Dr W. R. P. Bourne, M.B.O.U.

SOUTHERN OCEAN SEABIRDS

Prozesky, O. P. M. 1970 *A Field Guide to the Birds of Southern Africa*. P. 350, 40 plates and a map. Collins, London.

Slater, P., and eight others. 1971. *A Field Guide to Australian birds: Non-passerines*. Pp. xxxii + 428, numerous figures and maps. Oliver and Boyd, Edinburgh.

Watson, G. E., Angle, J. P., Harper, P. C. and Hines, B. 1975. *Birds of the Antarctic and Subantarctic*. Pp. xvii + 350, numerous figures and maps. American Geophysical Union, Washington.

Harper, P. C. and Kinsky, F. C. 1978. *Southern Albatrosses and Petrels*. Pp. 116, numerous figures. Price Milburn, P.O. Box 2919, Wellington.

Falla, R. A., Sibson, R. B. and Turbott, E. G. 1966. *A Field Guide to the Birds of New Zealand*. Pp. 256, 12 plates, various figures, 3 maps. Collins, London.

It does not really matter how poorly the more marine birds are covered in northern "Field Guides", whose authors seldom seem to have looked out to sea, because there are fewer species and most are easily distinguished. The problems become more serious in the southern hemisphere, where until recently there was little alternative to first finding, then buying, and finally carrying around both volumes of R. C. Murphy's *Oceanic Birds of South America* in the hope that it might be found to mention anywhere else you went to as well. More recently the largest gap has been filled by Dom and Vin Serventy and John Warham with their *Handbook of Australian Seabirds* (with a revised edition in preparation), but even that is still a little large to put in the pocket, so it may be useful to list some of the books which will go into a large pocket.

First there are a series of orthodox field guides for the southern continents which most people will find handy when they go ashore, though they are less use at sea. The treatment of seabirds gets better and the classification odder from west to east. Prozesky provides little more than a caricature of the commoner South African species, but Slater provides a fairly routine account of their Australian representatives and Falla *et al.* have studied the few in New Zealand so closely that they have managed to find several extra species, though regrettably even they have only managed to fill about a quarter of their book with seabirds.

The economically-minded seabirdmen will therefore next turn to Watson *et al.*, who have managed to cram so much information about the birds of Antarctica and the Southern Ocean and their environment into their fat little book that a magnifying glass is required to read it. Their worst gap is found in the New Zealand area, which those who have been there will be startled to learn does not belong to even the sub-Antarctic. Fortunately, this is covered by (despite its idiosyncracies) the best of the previous field guides. Those who like to see their birds described simply, in large print with pictures and wrapped up in plastic against the wet, and do not mind about accuracy, may also find useful the popular account of the albatrosses and petrels progressively developed by Harper and Kinsky from a pioneer paper by Moreland (Tuatara 6 : 99 - 107).

MEDITERRANEAN OUTPOSTS

Sultana, J., Gauci, C., and Beaman, M. 1975. *A Guide to the Birds of Malta.* Pp. xvi + 191, 2 plates, several illustrations and a map. Malta Ornithological Society, P.O. Box 498, Valletta.

Cortes, J. E., Finlayson, J. C., Mosquera, M. A., and Garcia, E. F. J. 1980. *The Birds of Gibraltar.* Pp. 119, 2 plates, numerous illustrations and 3 maps. The Gibraltar Bookshop, 300 Main St., Gibraltar (also Gibraltar Ornithological Society, c/o. Gibraltar Museum, 18 - 20 Bomb House Lane, Gibraltar).

While the founders of the British Empire commonly appear to have had a fine time killing the birds and taking their eggs, they usually left the local literature in a fine mess. Now that the smoke has begun to lift, a series of local ornithological societies are occupied in clearing up, starting with the Maltese followed by the Gibraltarians. Both have produced critical checklists and massive bibliographies, but their stories then begin to diverge. While the Maltese tell a tale of the endless slaughter or capture of migrants trying to cross the centre of the Mediterranean (fortunately now modified by the passage of new legislations this year), the Gibraltarians have had to dig in their ice-age cave-deposits to find specimens, and when the wind blows from the west are able to watch endless streams of raptors sail back and forth untouched, across the Strait overhead instead. Both societies also produce regular periodicals. It is a pity that the Greek and British halves of Cyprus ornithology are so busy feuding that they cannot tell their tale as well.

THE HOMES OF THE DODO AND SOLITAIRE

Staub, F. 1976. *Birds of the Mascarenes and Saint Brandon.* Pp. 110, 12 colour and 20 black and white plates, 6 maps. Organisation Normale des Enterprises Ltée, Labama House, Port Louis, Mauritius.

The Mascarene Islands are the first of those archipelagoes where the Pleistocene overkill was delayed until the arrival of modern man so that we still have eyewitness records of the way in which giant birds once owned the islands. Their two huge pigeons, the Dodo of Mauritius and the Solitaire of Rodriguez (and possibly another yet to be dug up on Réunion) rank among flightless birds immediately after the Roc of Madagascar and Moas of New Zealand, and the rest of their avifauna immediately after that of Hawaii and the Galapagos for the complexity of its local evolution. Sadly, most of them have now been swept away while the survivors include no less than a dozen of the rarest birds in the world. Their survival has depended upon the development of an interest in conservation among the local people which has previously received little attention. France Staub sets the seal on a distinguished contribution with this book, which is generally knowledgeable, accurate, readable, and beautifully illustrated with a comprehensive variety of ancient and modern illustrations and maps, including excellent photographs of most species, many of which he took himself. We need more such works.

THE BIRDS OF THE GULF

The Persian or Arabian Gulf has always presented difficulties to the visiting birdwatcher because it has a rich and little-known avifauna derived from three highly distinct zoogeographical regions, the Holarctic, Orient and Ethiopia, and several different political administrations. Until recently moreover it was only covered by one characteristically eccentric textbook, Col. Richard Meinertzhagen's *Birds of Arabia*, liable to cause confusion to the inexperienced, which went out of print soon after its publication in 1954. This is only now being reprinted in a limited edition at a cost of £268.

It is therefore particularly good news that the first number of the new journal of the Middle East Ornithological Society, *Sandgrouse,* contains a 46 page "Checklist of the Birds of the Arabian Gulf States" by Graham Bundy and Effie Warr accurately summarising the vast amount of information which has more recently become available about the distribution of birds on the south coast of the Gulf. The journal costs £5 and can be obtained from the society, which also deserves your support, c/o. the R.S.P.B., The Lodge, Sandy, Beds., SG19 2DL, England.

Most of the birds are covered in European textbooks, and it is not difficult to find out more about them. Until recently an interesting minority of native Arabian, Indian and African species were not covered properly anywhere, certainly not in one place.

This gap has now also been filled by an extraordinarily handsome textbook, *The Birds of Oman*, by Michael Gallagher and

Martin W. Woodcock (Quartet Books, London, £37.50), which provides an excellent, lavishly-illustrated account of that wonderful and previously little-known country, with concise, accurate, up-to-date summaries of the distribution, appearance and behaviour of its birds, illustrated by good portraits. His Majesty Sultan Qaboos bin Said and his people deserve the greatest credit for their support for Michael Gallagher in the production of this work.

W. R. P. Bourne

(Books can usually be obtained while in print from the Bird Bookshop, Scottish Ornithologists' Club, 21 Regent Terrace, Edinburgh EH7 5BT; prices currently tend to vary.)

ROUND THE WORLD IN 90 DAYS

AN ACCOUNT OF BIRDS SEEN DURING S.S. *CANBERRA'S* WORLD CRUISE FROM 12 JANUARY - 12 APRIL 1980'

By Bernard and Elizabeth Watts, R.N.B.W.S.

PART I

UK - Miami - Bonaire - Acapulco - San Francisco - Honolulu Suva - Sydney

S.S. *Canberra* sailed out of Southampton on 12 January 1980 to take amongst her 1700 passengers, two keen birdwatchers around the world in 91 days.

Apart from the odd Kittiwake *Rissa tridactyla* and Cory's Shearwaters *Calonectris diomedea,* the Atlantic was monotonous, but things livened up when we reached Port Everglades to a welcome from an Osprey *Pandion haliaetus,* Double-crested Cormorants *Phalacrocorax auritus,* Brown Pelicans *Pelecanus occidentalis,* Laughing Gulls *Larus atracilla,* Ring-billed Gulls *Larus delawarensis*, and Royal Terns *Thalasseus maximus*; pride of place, however, went to a party of 200 Black Skimmers *Rhynchops nigra,* which we found resting on a car park in the docks, where we were able to study them both in flight and at rest, noticing how they place their huge bills on the ground when resting.

Magnificent Frigate-birds *Fregata magnificens* joined us at approximately 22°02′N, 77°17′W but soon left, and we passed the coast of Haiti with no birds in sight. 23 January found us off the coast of Venezuela where beautiful Roseate Flamingoes *Phoenicopterus rubra* gave us great pleasure tinged with sadness at their appallingly small numbers. We saw many interesting species on a fascinating island where Magnificent Frigates hung in the

fresh breeze and Ospreys fished along the shoreline with Royal Terns in winter dress.

The anchorage at Cristobal was home to Brown Pelicans and many Laughing Gulls, and mention must be made of the hundreds of Turkey and Black Vultures, *Cathartes aura* and *Coragyps atrata,* which could be seen from the ship, soaring in the sultry thermals over this somewhat squalid setting.

No written word or film can truly convey the wonder of the Panama Canal, and we were overawed by the engineering skills which masterminded this incredible project. A host of unidentified calls echoed from the dense vegetation on either side as S.S. *Canberra* made her way towards the Pacific; Frigate-birds, Brown Pelicans and Laughing Gulls accompanied us. We noted some 30 skuas (sp.) and a few Sandwich Terns *Thalasseus sandvicensis* together with Bigua Cormorants *Phalacrocorax olivaceus*, Rough-winged Swallows *Stelgidopteryx ruficollis* and Panama Swallows *Stelgidopteryx uropygialis*. The latter are considered to be a race of *S. ruficollis* but to us they seemed clearly distinguishable with pale rumps. We next steamed north towards Mexico where a highlight for us was watching a pair of Black Skimmers fishing at 0200 in the lights of the ship as we lay at anchor in the breathtaking Acapulco Bay.

At times the sea between Acapulco and San Francisco was alive with rafts of auklets and murrelets (species unidentified), at other times not a bird was to be seen - a situation we became used to, but never without disappointment and sense of frustration.

The grey, glass-like sea around San Francisco was full of birds and we delighted in many species of Gull including Glaucous-winged *Larus glaucescens,* Californian *Larus californicus*, and Western *Larus occidentalis*. All three species of Scoters - Common *Oidemia nigra*, Surf *Melanitta perspicillata*, and White-winged Scoters *Melanitta deglandi* - were noted in the harbour together with many Western Grebe *Aechmophorus occidentalis*. Brandt's *Phalacrocorax penicillatus* was a new cormorant species for us. Again we went ashore, and in the parks of this friendly city noted many American species new to us. Setting sail for Hawaii on the 4 February we noted two adult *'Larus'* gulls with pink legs, which we presumed to be Herring Gull *L. argentatus*, well out to sea. We also recorded this species in San Francisco Harbour.

At 1600 hours on the 5 February we sighted our first ever albatross. It was an immature Black-footed *Diomedea nigripes* and all the features were just as in the handbook. On deck at first light the following morning we were rewarded with the most exciting of our seabirds for the entire voyage. After recording two Laysan Albatrosses *Diomedea immutabilis* we sighted a bird closely resembling the immature Black-footed of the previous evening, but this one showed no white at all around the bill or upper tail coverts, which could have been a Short-tailed Albatross

Diomedea albatrus. By noon at 27°41′N 144°27′W another immature Black-footed brought us three species of albatross for the morning. The next day, although the Short-tailed was not seen again, numbers of the other two species increased to a rewarding 12 birds in sight at one time at 23°53′N 152°08′W. By next day all had departed and we had no further records.

Our visit to Oahu in the Hawaiian Islands was uneventful apart from a party of 10 Pomarine Skuas *Stercorarius pomarinus* in the harbour, where they are regular migrants.

On 9 February, (6°57 N 166°20 W at 2130), we had Sooty Terns *Sterna fuscata* not only over the ship - dark shapes in the artificial light - but also one bird in the hand. Cared for on the bridge, it was released safely next morning, but not before we had "rescued" two or three Wedge-tailed Shearwaters *Puffinus pacificus* from various upper decks. After allowing them time to rest, they all flew off strongly when released over the rail. The next day, both Leach's and Madeiran Storm-Petrels *Oceanodroma leucorhoa* and *O. castro* made unscheduled stops on board; in fact, one of these delightful birds was brought to us during dinner and caused not a little interest amongst our fellow diners!

Shearwaters and boobies were present most days until Australia, with one very hectic period as we passed between Lord Howe Island and Ball's Pyramid; in those few moments we observed hundreds of sea birds. Many Wedge-tailed Shearwaters, of which some 20% were pale-phase birds, several White-bellied Storm-petrels *Fregetta grallaria*, three or four Little Shearwaters, *Puffinus assimilis*, and Pale-footed Shearwaters, *Puffinus carneipes*, together with Masked Boobies *Sula dactylatra* were positively identified, but with a stiff breeze and the ship steaming at some 20 plus knots, identification was difficult and several species obviously escaped us. Nearer the Australian coast Sooty *Puffinus griseus* Short-tailed *Puffinus tenuirostrus*, and Fluttering Shearwaters *Puffinus gavia* were encountered, and one solitary Australian Gannet *Sula serrator*.

Landfall was made in Australia on 19 February and we saw our first Silver Gulls *Larus novaehollandiae*. We had recorded some 140 species of land and sea birds, and many fascinating adventures still lay ahead for us on our cruise to see the birds of the world.

GROUP 8 DEPLOYMENT — A BIRDWATCHER'S NOTEBOOK

By Chief Petty Officer (O.E.A.1:) T. H. Hunter, Royal Navy

Having had more than a passing interest in ornithology, I looked forward with relish to last year's Group 8 Deployment onboard H.M.S. *Falmouth*. We sailed from Portsmouth one fine May morning for Gibraltar and thence into the Mediterranean, accompanied by numerous Manx and Cory's Shearwaters.

Five days from Gibraltar we had a rather unlikely visitor. My attention was drawn to an ungainly looking creature which had landed onboard in the early hours of the morning of 19 May. The seaman watch on deck had placed it on top of an electric fan motor in two deck passage and, being well intentioned, offered it the contents of one "large white sliced loaf" but this it totally ignored. Somewhat bored with sitting on the fan, it made its way along two deck and into the Combined Radar Office, firmly entrenching itself behind some inaccessible equipment. It took some considerable time to catch, but eventually it was placed in a cardboard box and it managed one escape whilst on the mess deck. I initially identified the bird as a 'Little Crake', although not being too familiar with this family, there is a good possibility of it being a 'Spotted' or other crake.*

Continuing eastwards, numerous landbirds were seen, most of which were House Martins, quite often in small flocks of five or six. Often they roosted onboard overnight. After a visit to Izmir in Turkey we transited Suez into the Red Sea but despite the relative narrowness of the Red Sea, few land or seabirds were seen at its northern end. Perhaps the extreme heat was to blame, never below 100°F during the day.

Once into the Gulf of Aden, Persian and Pale-footed Shearwaters, Wilson's Storm-petrels, Brown-winged Terns and Aden Gulls became numerous. In the Indian Ocean we met our first bad weather, which kept me below decks for a couple of days. On 15 June we "Crossed the Line" and shortly after, I saw my first Great Frigate-bird. The following day we anchored off Praslin Island in the Seychelles for a weekend visit. Praslin is a bird paradise and I was thrilled to catch a glimpse of a rare Black Parrot.

**Note by Editor.* From the photographs of the 'Little Crake' and also an excellent drawing made at the time, there is no doubt that this bird was a Spotted Crake *Porzana porzana* - a most interesting record and the first, to my knowledge, onboard a ship anywhere. This species breeds throughout Southern Europe and is a partial migrant to Africa so it is to be expected in transit across the Mediterranean, although the date (May 19) seems rather late.

We continued southwards and on 1 July I saw my first Yellow-nosed Albatross off the coast of Western Australia. After a long stay in Fremantle we sailed round to Adelaide. As soon as we had changed course eastwards, we were followed continuously by numerous Black-browed and Wandering Albatrosses, most of which were in varying degrees of immaturity. Mingling with the albatrosses was a liberal sprinkling of Cape Pigeons and Giant Petrels. This area of Australian water provided the best bird-watching of the entire Deployment.

Having had "good runs" in Adelaide and Sydney, we rounded the top of New Zealand, where there were hundreds of Common Diving-petrels to be seen. There was good birdwatching whilst alongside at Whangerei (N.Z.) - Reef Herons, Teal, kingfishers, Pied Cormorants and White-fronted Terns. From New Zealand we sailed to Fiji, Samoa, and then back to Sydney, seeing only the occasional albatrosses. Once close to Sydney however, we were rejoined by numerous prions, petrels (mainly White-chinned) and shearwaters.

Our next port of call after Sydney was Mackay, Queensland. I saw no more albatrosses north of Sydney, but there were still plenty of shearwaters (mainly Short-tailed), petrels and the occasional Brown Booby to be seen. After leaving Australia, we crossed the Great Barrier Reef, transited the Torres Straits and arrived at Singapore, carrying a "Goshawk" which had embarked the day before our arrival, roosting overnight on the Seacat deck.

After an enjoyable three weeks in Singapore, we sailed for Colombo, but apart from a Wompoo Pigeon which landed onboard shortly after sailing and remained overnight, there were not many birds to be seen on route to Colombo. Leaving Colombo on 13 November, we sailed towards the Red Sea, seeing numerous Masked Boobies and the occasional White-cheeked Tern. We made our way up the western side of the Red Sea, passing numerous pelicans alighted on the surface. Having taken nearly 24 hours to transit Suez, due to sand storms and a tanker aground ahead of us, we re-entered the Mediterranean, and stormy weather. After brief stops at Athens and Gibraltar we arrived back in Portsmouth on 14 December, and a much-needed Christmas leave.

All in all it was a highly interesting trip for a birdwatcher, and I added a large number of new sea birds to my "list". Armed with Captain Tuck's new *Field Guide to the Seabirds of Britain and the World* there is now no excuse for not being able to try and identify them. I hope other R.N.B.W.S. observers in future R.N. Group Deployments will have as much fun as did I.

R.N.W.S *CRIMOND* - CONSERVATION SCHEME

By Chief Petty Officer D. S. Preston, Royal Navy

Situated midway between Peterhead and Fraserburgh on the Buchan coast of Aberdeenshire is the Navy's newest shore wireless station, R.N.W.S. *Crimond*. Named after the nearby village, this ex-naval air station, previously H.M.S. *Merganser*, now enjoys quieter times in contrast to the late 1940s when 3,000 sailors supported the Swordfish and Barracuda squadrons stationed there. Bounded to the north and east by the Loch of Strathbeg R.S.P.B. reserve (a site of International Importance for wintering wildfowl) and to the south by farmland, this 475 acre site is ideal for anyone interested in natural history, especially ornithology.

Taking raptors as an example, birds commonly seen on the aerial farm include Kestrel, Common Buzzard, Short-eared Owl, Merlin and Hen Harriers overwintering. Others, seen regularly though less frequently, include Peregrine Falcon, Marsh Harrier and Osprey. Long-eared Owls and Sparrow Hawks reside on our northern boundary and rarities seen in the general area in recent years include Red-footed Falcon, Hobby, Golden Eagle, both Red and Black Kites and Rough-legged Buzzard.

An equally impressive list can be made for Strathbeg's wildfowl, which is why *Crimond* is important to the success of Strathbeg. During the winter the Loch of Strathbeg holds at least 10% of the total Icelandic population of Greylag/Pinkfooted Geese and Whooper Swans. The Navy now protects the southern and western shoreline from poaching and general disturbance, and the small number of geese and swans killed in the aerial rigging is now considered a small price for this added security.

In order to improve the generally run-down and neglected appearance of the old airfield, the rubbish accumulated over the last thirty years has recently been collected and disposed of. This included bits of hangars and aircraft, oil drums, mattresses, bottles, beer cans, agricultural debris and spare parts of cars from *Crimond*'s "race track" days.

Rabbits do a great deal of damage in certain areas by undermining the fences and eating just about everything green, consequently more than 7,000 have been disposed of in the last eighteen months.

Oystercatchers and Ringed Plovers nest on the runway during the summer. Both species have been encouraged by scattering gravel around many areas and placing large stones preventing vehicles running over eggs. Nesting Lapwing and Skylarks require no such assistance - just freedom from disturbance.

In March 1980 a meeting was held with all interested parties invited including the R.S.P.B. warden and his assistants, N.C.C. and D.O.E. representatives and station staff. The "*Crimond*

Conservation Group" was formed with the objectives of improving the grounds in our care for wildlife and making the area more attractive to human eyes. To this end, future projects include the creation of pools for wildfowl, tree planting to act as windbreaks, food and cover for small birds and the building of a hide for service personnel overlooking the Loch of Strathbeg. The group also joined a larger organisation within the M.O.D. called "Defence Lands 3". This body, run by the M.O.D. Conservation Officer, Colonel C. N. Clayden (Retired), advises establishments on all matters relating to land management and conservation.

Does your establishment have such a group? If so, why not join them; if not, why not start your own? I'm sure Colonel Clayden would be delighted to hear from you.

Note Colonel Clayden is secretary of the Army Birdwatching Society with whom R.N.B.W.S. has close links. Address: Candlewick Cottage, Avenue Road, Fleet, Hants.—Ed.

THE JOINT SERVICES EXPEDITION TO PRINCESS MARIE BAY, ELLESMERE ISLAND, 1980

Part I - Initial Report

by Lieutenant Brian Witts, F.R.G.S., Royal Navy

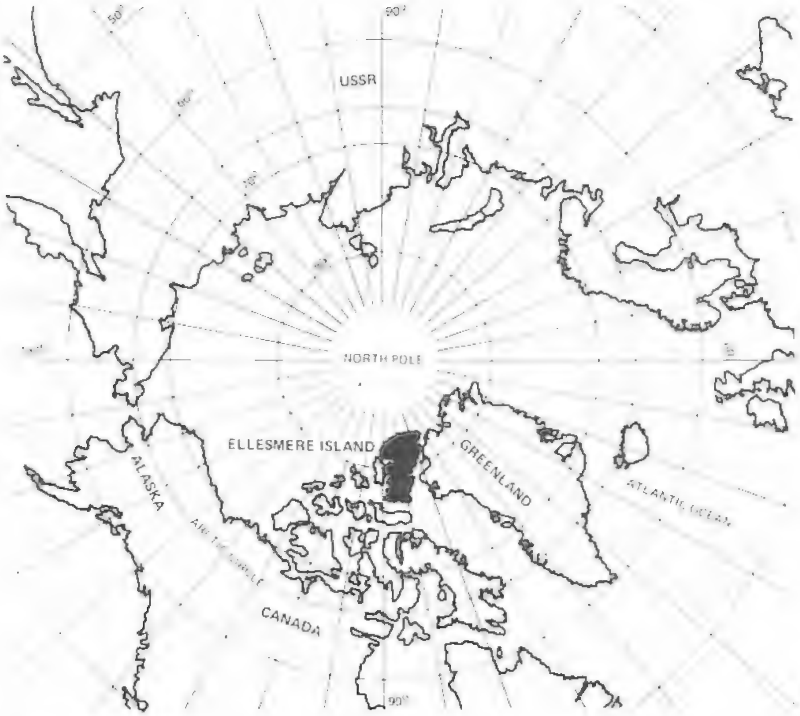
The expedition lasted from 21 May to 26 August, which enabled projects to be run through the entire Arctic summer. There was full snow cover on arrival, and we were able to establish and reconnoitre the area before migrant birds arrived and plants and insects emerged. The spring thaw took place between 15 and 26 June, but the sea ice continued to be safe for travelling until early July.

Included among the aims of this expedition were several ornithological projects: a study of the breeding biology of wading birds, collecting basic data on their breeding performance, densities and a ringing study. Attempts were also made to establish precise locations and to establish breeding densities of seabird colonies along the coast.

The immediate area around our Base Camp was fertile and rich in wildlife, and all the projects were achieved. Some were unexpectedly fruitful and we were, for example, able to study the nesting habits of the little known Baird's Sandpiper *Calidris bairdii*. We also discovered a breeding colony of the Ivory Gull *Pagophila eburnea*.

The Expedition Area (See maps 1 - 3)

The expedition operated on the north coast of Princess Marie Bay, on the east coast of Ellesmere Island. All activities took place

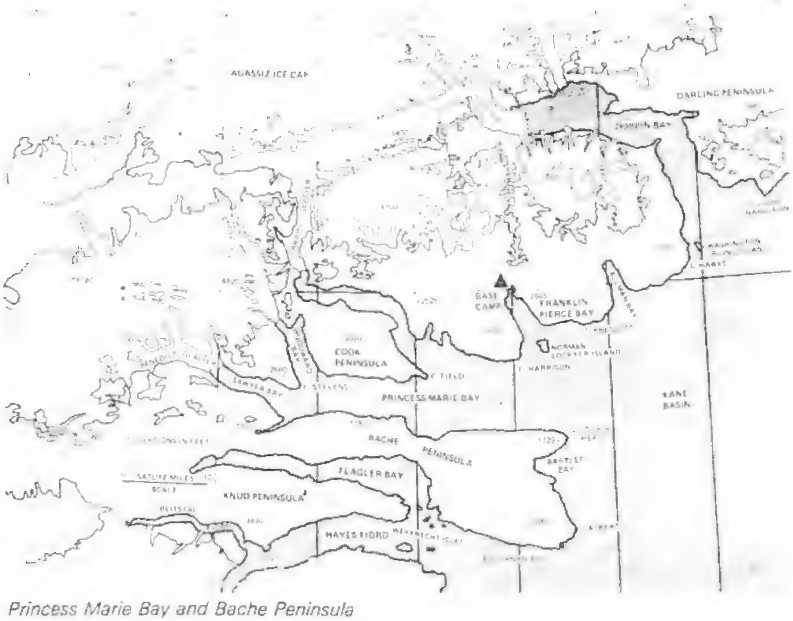


"The top of the world"

Map 1

Map 2

Ellesmere Island.



Princess Marie Bay and Bache Peninsula

Map 3

within the area bounded by latitudes 79°20′N to 79°41′N and longitudes 72°55′W to 77°10′W. The terrain is very mountainous with ice-caps feeding many glaciers which often protrude directly into the sea and calve icebergs during the summer months. The coastline is in most places very steep, 600m cliffs and scree slopes being the dominant features. The sea is frozen for the greater part of the year but it does thaw sufficiently to give some open water during the latter part of the summer. In the coastal valleys where in the summer large braided river systems are continually fed by the melting snow on the high ground and glaciers, small areas of sparse vegetation are to be found providing sufficient food resources to support wildlife.

The Base Camp was established in a valley on the north side of Princess Marie Bay where it joins Copes Bay at 79°29′N, 75°48′W. Most activities took place in this valley system which is shaped like a letter "Y" tilted so that the upper right limb of the letter lies north - south. There are glaciers at both valley heads and braided river systems in each of the three limbs. The river flowing down the bottom limb empties into Princess Marie Bay via an unnamed bay. Vegetation is virtually confined to the lower slopes between the

braided river system and the scree slopes. A significant portion of the vegetated area is marsh, some areas of which dry out rapidly after the melt, but the greater part remains wet throughout the summer. Much of the rest of the slopes are very sparsely vegetated and show considerable signs of periglacial processes.

Wader Project

The objectives of the Wader Project were as follows:

a. To catch adults at the nest for ringing and colour ringing, dye-marking, measuring and weighing, plumage photography, and to examine them for parasites and moult.

b. To record details of the nest and its size, clutch size, egg size and weight, laying and hatching dates, hatching success and dispersal, and growth rate of young.

c. To record physical and botanical details of the breeding habitat.

d. To record details of distribution, breeding behaviour and dispersal.

e. To study feeding ecology through observation and the collection of droppings.

The wader study went into full swing from 27 May. All observations were mapped, and as much information as possible concerning flock movements, pairs, sex, age, courtship, song and other behaviour was noted. Part of the study area was searched each day, and the whole study area was covered regularly.

Nests were examined and information on contents, habitats and birds present were recorded. Adults were mainly caught at the nest using wire mesh drop-door traps, or walk-in traps. Young caught at the nest on hatching, and others found later, were weighed, ringed and colour ringed. Colour ringing and colour dyeing were used to identify single birds and family groups within the study area throughout the breeding season.

Results

Knot *Calidris canutus*. The first Knot was heard singing on 26 May, and a flock of 50 was observed on 27 May. From 27 May pairs and some singles were seen nearly every day until the middle of June. On 7 June a pair of Knots was observed, one was making a nest scrape and on completion the first egg was laid. Unfortunately, this nest was predated just after the clutch had been completed. A nest found on 23 June was observed through to hatching on 9 July. Knots' nests are difficult to find, and the predation of our first two nests was not an encouraging start to Knot observation.

The discovery of nests, and a number of recently hatched *pulli,* later in the season, improved the situation. The *pulli* were subsequently caught two or three times through to fledging and produced interesting results on weight increase, feeding and plumage details.

Flocks of adults from 2 August, and juveniles from 14 August, were seen feeding near the river mouth at low tide. The number of juveniles peaked at 53, with six adults, on 17 August.

Baird's Sandpiper *Calidris bairdii*. Little is known of the distribution and breeding of Baird's Sandpiper, so it was with great excitement that the first pair were sighted displaying on 14 June. Their numbers increased over the next few days and the decision was made to concentrate on this species. The first nest was found on 21 June, and eventually we recorded 16 nests within the study area. The first egg hatched on 13 July, and by 17 July most nests had cleared. We were able to follow family groups, catching and weighing through to fledging. Flocks of juveniles were observed forming and breeding at the river mouth and adjacent pools, peaking at 29 birds on 18 August.

The following biometrics of the adult Baird's Sandpiper were recorded:

	Wing	Bill	Tarsus	Weight
14M	122-128 (124.9)	20-25 (22.0)	19-25 (23.5)	37-45 (41.8)
7F	122-130 (126.6)	22-25 (23.2)	23-25 (24.3)	40-46 (42.6)

Eggs. 16 sets of four eggs were processed within the study area. Measurements of 11 sets of four eggs within 2 - 3 days of commencement of incubation were:

Width 23.7mm Length 33.6mm Weight 9.4gm

The ground colour of these eggs was a brownish tan to buffish white. The overlaying spots and blotches of lavender and reddish brown were sparse to very dense, some slightly whorled, and some with darker scrawls.

Turnstone *Arenaria interpres*. The valley seemed an ideal habitat for Turnstone, so it was rather disappointing that so few appeared. The first Turnstone was observed on 1 June, and a pair on 9 June. Only one nest was found, and this on 3 July. No other pairs of Turnstones were seen in the area. Later in the season a number of adults and juveniles were seen feeding in the river mouth. They were mainly in small flocks of 5 - 10.

Ringed Plover *Charadrius hiaticula*. The first single Ringed Plover was sighted on 9 June. Only a few, mainly singles, were present for the rest of the season. One nest containing four eggs was found on 27 June, hatching on 12 July. Juveniles and adults were observed feeding near the river mouth from 10 August, peaking to 13 juveniles and four adults on 16 August.

Sanderling *Calidris alba*. One pair was first sighted on 18 June. No nests were found and little was seen of them throughout the season. On 23 July four *pulli* were caught and ringed.

Golden Plover *Pluvialis apricaria*. One pair was observed

feeding on the edge of a marshy area on 20/21 June.

Purple Sandpiper *Calidris maritima*. A single bird was observed feeding in a marshy area on 23 June.

Breeding success. A total of 22 wader nests was found in the study - 16 Baird's Sandpiper, 4 Knots, 1 Turnstone, 1 Ringed Plover. It was surprising that all the Baird's Sandpipers' nests found in the study area escaped predation, with Long-tailed Skuas, *Stercorarius longicaudus,* scrutinising the area daily, and visits being made by Arctic Foxes *Alopex lagopus*.

A total of 123 waders was caught and handled:

	Adults	*Pulli*
Baird's Sandpiper	22	58
Knot	3	26
Turnstone	1	4
Ringed Plover	1	3
Sanderling	—	5
	27	96

Seabirds

Compared with some other parts of the Canadian Arctic which have been extensively studied in the last few years, very little is known about the seabirds of the Kane Basin. Records were kept on the coastal journeys, particularly those around Cook Peninsula and to Washington Irving Island, at the entrance to Dobbin Bay. A helicopter survey to the Darling Peninsula and Dobbin Bay was made on 8 August. This covered a further 152km of coastline. The coast nearest to the Base Camp was kept under sporadic observation throughout the expedition.

Long-tailed Skua, *Stercorarius longicaudus*. First seen on 4 June and a pair established a territory near the Base Camp from 19 June to 20 July but did not appear to breed. A party of three came into the camp area on 15 July and thereafter there were scattered sightings. A juvenile was seen with adults on 23 and 24 August.

Ivory Gull *Pagophila eburnea*. Seen frequently over sea ice and open water throughout the expedition, from Copes Bay to Norman Lockyer Island. On 14 August a colony was discovered on a cliff face above a glacier. Thirty-two *pulli* were counted and some were flying by 20 August. This discovery is among the most interesting finds of the expedition because only seven other colonies are known in Arctic Canada.

Glaucous Gull *Larus hyperboreus*. Seen regularly along the coast and sometimes inland. The coastal survey found 12 pairs probably holding territory along the 240km of coast. Only three

pairs gave indication of breeding.

Arctic Tern *Sterna paradisea*. First seen on 24 June. Breeding was confirmed at five very small colonies, although Terns were seen feeding at pools in the sea ice elsewhere along the coast. Laying date was between 2 and 8 July.

Little Auk *Plautus alle*. Two were seen, one on 8 July and one on 31 July.

Black Guillemot *Cepphus grylle*. Seen in most pools and leads in the sea ice from 18 June. Twelve colonies were identified either by droppings outside fissures in the cliffs, or by movements of birds.

Lieutenant Brian Witts, Royal Navy, H.M.S. *Excellent*, Whale Island, Portsmouth, Hants., PO2 8ER.

Part II - Brief Impressions

by Chief Petty Officer Ron Coulter, Royal Navy

In winter, the islands of Arctic Canada are as cold and inhospitable as any place on earth, but in summer they are transformed into a huge breeding ground for mammals and birds alike. It was to Ellesmere Island in the High Arctic that the Joint Services Expedition went in late May in order to study, amongst other things, the breeding habits and biology of birds in that area. Lt. Brian Witts, R.N., and I were studying Waders, in particular Knot *Calidris canutus* and Baird's Sandpiper *Calidris bairdii*.

The Knot is a beautiful bird in summer plumage. Its rufous breast, coupled with the larger size, makes it stand out amongst other waders. The Baird's Sandpiper, an uncommon bird for that part of the Arctic, is small with relatively long wings and a perky upright stance on the ground. Both types of bird are notoriously difficult to find on the ground as, having made their nests, they sit very tight and it is only by almost walking over them that they can be found.

When we arrived at Ellesmere Island there was complete snow coverage, but within ten days the first birds were arriving, and we were able to watch a pair of Knots make a nest scrape, line it with Mountain Avens' *Dryas* leaves and lay the first of four dapple-green eggs. Unfortunately, Arctic Foxes were in the area and the first two nests were predated. We had more success with the sandpiper and by the end of June twenty nests had been located. Every second or third day these would be visited and the eggs weighed. This enabled us to calculate the probable incubation date. A large number of the adults were caught, using wire net traps, and these were ringed and processed.

The first Knots' eggs started to hatch by the tenth of July. The chicks are born ready to walk and with sight and hearing fully developed. They hatch out within twelve to fourteen hours of each

other, and once the last chick is hatched the whole family leaves the nest on its journey down the streams and river valleys to the coast. Within a few weeks the sandpipers had started to follow the same pattern, and our days were spent locating and catching the young to monitor their day-to-day progress. Whenever we approached the birds the parent would start a distraction display, either by feigning a broken wing in the case of the Knot, or in the case of the sandpiper, by crouching and splaying the feathers, so that it resembled a lemming. At the same time the parent would give an alarm call and the young would keep perfectly still. So well camouflaged were they against the ground that, unless we were fortunate enough to see one move, it was impossible to spot them. However, we did succeed in catching a significant number at various stages of their development, and so gained valuable data in an area where very little is known.

By the end of July the young are almost ready to fly. Small groups gather by inlets and bays along the coast and exercise their wings for the coming migration. Flying in perfect unison, they show alternately grey and white as they wheel and turn back and forth over the water. They frequently land on the mud when the tide is out, as feeding is intense in an effort to put on sufficient weight to last the long journey ahead.

At last they are ready, and as the Arctic winter approaches, the waders gather into larger and larger flocks until at last, as if obeying some unseen command, they turn one last time and head out over the sea. Many fly to places as far away as Africa and South America. Perhaps some of the birds we ringed will be caught there, and even more will be learned about these very fascinating long-distance travellers.

(What a coincidence it would be if one of these were to be reported by a R.N.B.W.S. member on board a ship at sea! *Ed.*)

C.P.O. Ron Coulter, H.M.S. *Neptune*, Helensburgh, Dunbartonshire, G84 8HL.

SEABIRD OBSERVATIONS IN FIJIAN WATERS

By Lieutenant-Commander M. K. Barritt, Royal Navy

Introduction

The following notes are the results of observations by Captain R. O. Morris, R.N. (ROM) throughout the months December-April, June and September-November 1963, during surveys in Bligh Water by H.M.S. *Cook* (Commander F. W. Hunt, R.N.), and by the author (MKB) in April-May and mid-July to early August 1974 during surveys in the same area by H.M.S. *Hydra* (Captain R. C. Read, R.N.). Frequent reference is made throughout to published work by, and personal communications with, Captain J. A. F. Jenkins, M.N. (JAFJ).

The Fijis are the first Pacific island group to be encountered beyond the outliers of the Australasian region, and their avifauna is

similar. The *Handbook of Australian Seabirds* (Serventy *et al*) is the most valuable guide for sea observers. Slater's *Field Guide to Australian Birds - Non passerines* has excellent identification tables which can be compared with those in King's *Preliminary Identification Manual; Seabirds of the Tropical Pacific Ocean.* Mercer's *Field Guide to Fijian Birds* is the most readily available introduction to the bird life of the island group.

The general area is shown in the chartlet (Fig. 1), and is described in detail in the *Pacific Islands Pilot*, Vol. 2, Chapters 7 and 8, and Admiralty Charts 379, 381 and 4602.

Bligh Water is the expanse of water enclosed by the Yasawa Islands and the reefs running east from them, the north shore of Viti Levu, and the western end of Vanua Levu. Its littoral is characteristic of Fijian waters, with a mangrove belt, often extending to the offshore sandbanks which form the inner boundary of coastal passages flanked to seawards by extensive coral reefs. On these reefs lie many islets, some covered with scrub and trees, whilst others are mainly bare sand cays rising only a few feet above sea-level. This littoral provides homes for Lesser Frigate-birds, *Fregata ariel,* Brown Boobies *Sula leucogaster,* Crested Terns *Sterna bergii,* and White-capped Noddies *Anous minutus* which, together, form the majority of the resident seabird population. The richness of the reef-enclosed waters is the major factor governing the numbers of these species and their concentration close to islands. The more pelagic species are more difficult to assess, with the Fijian species requiring as much study as the passing migrants.

The voyager approaching the Fijis will probably find observations of ocean birds relatively sparse; sightings by ROM and MKB suggest that shearwater migration in the vicinity of the Fijis is funnelled immediately offshore. Further out into the North Fijian Basin, and to the southwest, the groups of shearwaters and terns feeding over fish shoals appeared smaller than in the Coral Sea which lies more in the circulation of the South Sub-Tropical Current, and to the east of the New Hebrides, where "Langmuir's windrows" indicate especially fertile seas. In April'74 MKB sighted large shearwater and tern groups, occasionally attended by skuas, all across the Coral Sea, and, after transiting the Bougainville Strait, groups of gadfly petrels, and shearwaters, tentatively identified as Wedge-tailed. The most famous companion of ships in southern waters, the Wandering Albatross *Diomeda exulans,* exceptionally reaches Fijian waters and JAFJ sighted an immature bird north of Kandavu in August 1970 and says others were seen 96 km SSW of that island in September 1973. H.M.S. *Hydra* also met with them from latitude 20°21′S during a voyage from Bligh Water to Brisbane in June 1974. On the same voyage and return, the Pintado Petrel *Daption capensis* was scarce below 26°S and vanished by 24°S. A study of the distribution of this species has

been published (Jenkins 1979).

Shearwaters. The Wedge-tailed Shearwater *Puffinus pacificus* is the one shearwater species for which evidence of breeding has been found in the Fijis. On 11 Mar 63 ROM visited Nananu-i-ra and found on the summit about 50 burrows which he believed to have been made by this species, and dug out one large nestling for measurement and recording. JAFJ found that the species can be expected between February and May north of the latitude of the Kermadecs on the Auckland-Suva route, with numbers tending to increase within 100 miles of Kandavu. He found them common in Fijian waters, although never in large groups; 20 to 30 have been seen at a time, but groups of less than ten are more normal. ROM saw a few to the west of Kandavu in February 1963, and others were present around the northern end of the Yasawa Islands and Yalewa Kalou from the beginning of his observations in January to the departure of H.M.S. *Cook* in early April. None were seen when the ship returned to Bligh Water in early June, and they had not returned by the end of September when H.M.S. *Cook* finally departed the area. None were sighted by MKB between April-August 1974. ROM observed that from 5 - 20 birds were in sight at any time in H.M.S. *Cook*'s survey area which extended out to 15 miles to seawards of Nanuya-i-ra, whilst south and east of Yalewa Kalou sightings tailed off rapidly and the most south-easterly sighting made was 15 miles from the island over the inner edge of the reefs.

The Sooty Shearwater *Puffinus griseus* is believed to move in a broad front throughout the South Pacific on migration between southern breeding areas and northern oceans and was tentatively identified by ROM and MKB in Fijian waters. It has however been suggested that this was a confusion in identification with the Short-tailed Shearwater *Puffinus tenuirostris*, which is abundant in Australian waters and migrates in flocks to and from the North Pacific in May and September. JAFJ's sightings (see Clunie *et al.* pp. 120-121) tend to confirm earlier records of Short-tailed Shearwaters appearing in large numbers in Fijian waters. Their migration passes west of Samoa and is deflected both sides of the Fiji group. On 21 September ROM observed small groups of dark shearwaters flying purposefully SSW from the vicinity of Yalewa Kalou towards Lautoka and the west coast of Viti Levu. By 24 September closely packed flocks of 150 - 200 birds were seen almost every hour. H.M.S. *Cook*'s last days in the area, 25 - 26 September, were spent between Charybdis Reef and Yandau. No shearwaters were seen, and ROM believed that the earlier sightings must have been of birds on a migration route with well-defined limits passing across the western end of Bligh Water. On 7 May 1974 MKB sighted shearwaters heading north seven miles off the reefs between Kiuva Point and Levuka, and presumably heading for the Vatu-i-ra Channel, suggesting that both north-going and south-going birds

178°
0 10 20 30 40 Miles
VANUA LEVU
BLIGH WATER
VITI LEVU
Nawula Passage
Sigatoka River
Rewa River
Nausori
Nausori Roads
Mbengga
Vatuele
Kandavu Passage
KANDAVU
FIJI ISLANDS Western Part.
Longitude 178° East of Greenwich

Fig. 1

follow offshore funnel routes round Viti Levu. Two groups of nine birds and a single bird were disturbed from the water, whilst a group of six and a group of three were spotted in flight. One raft of the species was in company with three White-capped Noddies. JAFJ has also seen a raft of Sooty Shearwaters off the east side of Viti Levu. However, his long-term observations indicate that sightings of Sooty Shearwaters in Fijian waters are of odd parties of birds off-track from their migration path which lies east of Tonga.

There are old records of Audubon's Shearwater *Puffinus lherminieri* as a breeding species. It occasionally turns up as a falcon kill in Suva, and in 1978 it was seen regularly off the reef entrance approaching Nadi Water. It has also been sighted in the Lau Group.

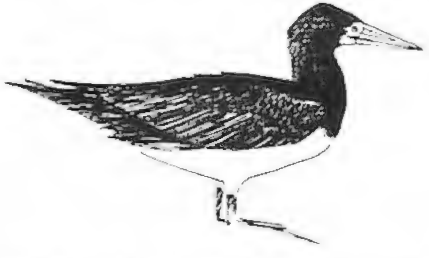
Petrels. Of the gadfly petrels, a Tahiti Petrel *Pterodroma rostrata* was sighted by MKB five miles WSW of Uverite Point, and three others 2¾ miles off the mouth of the Singatoka river on 17 April 1974. One of this species flew into a light at Tutu on Taveuni in 1972. JAFJ has also seen two birds near Mbengga in 1973 and another near the Fiji Group in 1976. MKB noted the all-dark brown plumage except for white breast, abdomen, and underwing coverts.

A White-necked Petrel *Pterodroma externa cervicalis* was sighted by ROM 70 miles south of Kandavu on 8 June 1963. He noted its conspicuous and diagnostic white hind neck. Several other records of single birds were made in May 1976. (Clunie *et al*, 1978.)

The Collared Petrel *Pterodroma leucoptera brevipes* was found breeding on Kandavu in 1925, and nineteenth century accounts mention birds found in the interior of Viti Levu. The species was a very common falcon kill in Suva in 1972-74, and remains were also found by Clunie among falcon kills at Joskes Thumb in southern Viti Levu. ROM recorded several in Bligh Water in January 1963, 5 - 20 miles SW of Yalewa Kalou, and six of the species between 80 - 5 miles south of Kandavu on 8 June. He saw none in Bligh Water at any other time, nor any in the eastern part of the Water in January. MKB sighted a group of six in the approaches to Suva six miles south of Munivuso Point on the morning of 17 Apr 74, and a single bird in the same area as the migrating Sooty Shearwaters SSW of Levuka on 7 May. Problems of identification at sea are evident in the recorded descriptions. ROM noted that the species is smaller than the Black-winged Petrel (see below), very dark above with the "W" on the wing showing only in good light, white about the face under a dark cap, with a variable amount of grey on the upper breast, and underwings white with broad blackish margins to leading and trailing edges. MKB found the "W" on the upper wing very clear, and described the upper-parts as light grey. He found the broken collar on the upper breast distinctive.

A Black-winged Petrel *Pterodroma hypoleuca nigripennis* was sighted by ROM on 8 Jun 63 when 80 miles south of Kandava, and another on 14 June in Bligh Water 13 miles SE of Yalewa Kalou. Both were definitely identified by their lightish grey upper-parts with dark "W" on the wings and distinct *nigripennis* underwing pattern. JAFJ has also sighted this species on the Auckland-Suva run, with numbers building up in the latitude of the Kermadecs, and falling off approaching Fiji. He has seen it frequently in the area south of Taveuni Island.

Tropic-birds. The White-tailed Tropic-bird *Phaethon lepturus* is seen in small numbers in Fijian waters usually singly or in pairs, three together being unusual. ROM saw one 45 miles off Kandavu on 7 Jun 63, and another in Bligh Water halfway between Yalewa Kalou and Lautoka on 3 April. Both were adults with yellow bills. MKB also saw single birds, one flying east about 70 feet above the water three miles south of the mouth of the Singatoka river on 17 April, another flying south off Levuka on 7 May, and a third disturbed from the water SE of Tivolei on 20 June. The species is recorded as breeding in the Fijis on Vatulele Island where it was first found in the 1930s, and it breeds on cliffs on Walnaya Island. Although within range of known breeding areas on Raoul and Norfolk Islands, the Red-tailed Tropic-bird *Phaethon rubricauda* is unrecorded in Fiji.



Boobies. The Red-footed Booby *Sula sula* and Brown Booby *Sula leucogaster* are both common residents in the Fiji group but, though occasionally seen in small parties on the approach routes, do not generally venture far from shore. ROM and MKB did not see the Blue-faced Booby *Sula dactylatra* but it has been observed south of Kandavu by JAFJ who estimated that birds were heading to and from Ono-i-lau and two nearby islands, Tarana-i-ra and Tarana-i-tholo.

The Red-footed Booby was found by ROM breeding on Vatu-i-ra, a small rocky islet mostly covered in scrub and low trees, which lies between Viti Levu and Yanua Levu. 300 to 500 pairs of both brown and white-phase birds were on nests on 26 Jun 63 with chicks in all stages from tiny downy nestlings to large half-fledged birds. Nests were not disturbed and so no eggs were seen. The untidy nests of large twigs and small branches were perched alone on the highest trees and on the lower ones mixed up with

those of Lesser Frigate Birds *Fregata ariel*.

ROM saw this species regularly throughout his time in Bligh Water. From January to April they seemed to be separated into two groups, one centred on Vatu-i-ra, and the other on the Yasawa Islands, with an area in the middle of Bligh Water where few birds were seen. In June, and again in September, small groups and single birds were seen frequently all over the area with the exception of the extreme NE, around and to the east of Yandua, where they were rarely seen at any time. In the evenings, from about two hours before sunset, birds from the centre of Bligh Water eastward could be seen making for Vatu-i-ra.

ROM also observed the species regularly throughout his time in the Fijis off Ovalau and off the SE corner of Viti Levu. On 8 June, when returning to Fiji from New Zealand, a number of these birds were seen in the late afternoon making for the islets to the NE of Kandavu from the southward, suggesting that there was a colony or night roost on one of them. MKB found the species to be most plentiful in the general area of the Vatu-i-ra Channel. Occasional birds were seen in the area immediately west and north-west of Charybdis Reef, but none were seen elsewhere in the western part of Bligh Water. The only other sighting round Viti Levu was of about 30 adult and immature birds amongst large flocks of Noddies to seawards of Mbengga Passage on 17 Jun 74. MKB observed the Vatu-i-ra birds to be well distributed during the daytime between that island and Vanua Levu, with the larger groups just inside the 100 fathom line off Vanua Levu, whilst fewer birds were sighted to westwards toward and around Nananu-i-ra. The groups were often in company with White-capped Noddies, and occasionally mixed up with Brown Boobies. Groups of from 12 - 40 Red-footed Boobies, with small numbers of Brown Boobies in company, were observed as rafts and in feeding flight, as far south as the vicinity of Kiuva Point and round Ovalau.

Except in one group, which was equally balanced, brown-phase birds outnumbered white-phased. Almost two-thirds of all MKB sightings were of brown-phase birds. ROM noted that these brown-phase birds were of duller hue than those of the same species in the Indian Ocean which had a more golden appearance. He noted too that their heads were paler than their wings, and that all breeding birds had white bellies, rumps, and tails. Observing at close quarters on Vatu-i-ra he noted that many otherwise pure white-phase birds showed a clay-yellow tinge to the head and upper neck. Two intermediate plumages were noted by MKB. One was all charcoal-grey except for the tips of the tail feathers which were white. The other was all white except for dark-grey mottled wings with a white median stripe. The egg-shell blue bill often appears slate-grey when the bird is observed in flight. ROM described adult white-phase birds bathing off Vatu-i-ra in a glassy sea. Two distinct movement patterns were observed; one was similar to a gull's

bathing, dipping the head into the water in front and flapping both wings. The other was a sideways roll, performed with wings half open, rolling to immerse one wing and side, whilst flapping the other wing and the legs above the water*. MKB saw as many birds in the water as in flight. The red feet are not a good recognition feature except in sightings of bathing birds.

The Brown Booby, though present in numbers throughout Bligh Water and off the coast of Viti Levu and Ovalau in 1963, was considered by ROM not to be as plentiful as the Red-footed except close round Yalewa Kalou and Nanuya-i-ra. Flocks of 100 to 200 birds were seen there from January to April. Few of these birds were immatures but in June and September a number of immature birds were seen. In these months, as in the case of the Red-footed, the Brown Boobies were spread over Bligh Water in contrast to their more concentrated distribution earlier in the year. MKB sighted more Brown Boobies than Red-footed, and found that Alexander's statement that the species is the commonest tropical Booby held good for Fijian waters. He sighted no flocks larger than about a dozen birds, and felt that since most sightings are of single birds and small groups this might give the impression that the species was less numerous. However, it was more generally distributed than the Red-footed, and was the likelier to be seen. It is common on the beacons marking the coastal passages round South and East Bligh Water, and Clunie reports it on the beacons in Walnaya Harbour and near Mali Island off the north coast of Vanua Levu. MKB found the species present in the Yasawas and sighted groups of up to a dozen fishing out in Bligh Water, 15 miles south of Yalewa Kalou.

As well as feeding in Bligh Water and over the coastal reefs the Brown Booby almost certainly ranges offshore. JAFJ records the almost invariable presence of a dozen or more sitting on Navula Lighthouse at the reef entrance to Lautoka, and suggests that they feed to westwards since small groups are sighted flying to the light structure from the west in the evening and going out to sea in the morning. MKB sighted the species flying to the westwards past Vomo Island. It is often sighted in small numbers amongst groups of Red-footed, and MKB found the Brown Boobies to be the more spectacular fishermen, their low flight and shallow dive from about 15 feet above the surface appearing dashing and efficient. ROM observed that the colour of feet, legs, and bare facial skin of all

Note. J. B. Nelson remarks that in the Red-footed Booby the amount of gold or ginger in the plumage, and also the golden head colour, varies within populations. The occurrence of pale heads and white rumps and tails has been observed before, though any correlation between the occurrence of white bellies and breeding would be new; he wonders if it could be related to age? The charcoal-grey bird seems likely to be a juvenile. Roll-bathing has previously been reported in other boobies but, though to be expected, is new for the Red-footed.

birds seen in Fiji was a greenish sulphur-yellow; however, MKB described the facial skin of an immature which flew close past the bridge-wing as blue. A tenth of MKB's sightings were of immature birds and he noted that the chest and abdomen of these were light grey in contrast to the rest of the plumage which was dusky brown with darker patches on the wings. One bird had white tips to its tail feathers.

Frigate-birds. During 1975 the presence in numbers of the Greater Frigate-bird *Fregata minor* in the Fijis was confirmed by sightings in the Astrolabe Lagoon, east of Kandau. The Lesser Frigate-bird *Fregata ariel*, however, is more commonly seen, and is generally distributed around the group. ROM found the species to be common from the Yasawas to Yandua and Vatu-i-ra and beyond, as well as all down the east coast of Viti Levu. MKB similarly saw concentrations at Vomo Island and Nananu-i-ra. ROM found 500 - 700 pairs nesting on Vatu-i-ra on 26 Jun 63 with both eggs and chicks present. The species is most often seen as a pirate terrorising boobies and terns, although flocks were seen fishing over shoals on their own account. The birds at Nananu-i-ra followed the White-capped Noddies as they located shoals of small fish over the reefs, but once food was found did not appear to trouble the smaller birds. Flocks also range further out over Bligh Water. A note on recognition features of the species is given in *Sea Swallow* 25, pp. 50 - 51, and aims to clarify some confusion in drawings in Field Guides. However, the underwing marking on male Lesser Frigate-birds in Fijian waters (as throughout the waters observed by MKB) is orientated as illustrated by P. Slater and not as in the *Sea Swallow* illustration which mistakenly follows other guides. Also, in the female, in the same place as the male streak a "spur" is often seen off the white upper breast. Although mentioned in Field Guides this is not illustrated. ROM's descriptions of the birds on Vatu-i-ra bear out MKB's observations of female bills as pink. He also observed brown mottling on median and great wing coverts which may explain pale patches sighted by MKB on upper and under-wings of some birds when in flight.

Terns. Nine species of tern have been seen round the Fijis but their breeding status is often unclear. Old records report the Black-naped Tern *Sterna sumatrana* as generally distributed within the group, and ROM found it breeding at Vatukatolu in Ngaloa Bay in Vanua Levu, and on Vatu-i-ra. He visited the former site on 7 Jan 63 and found nests on one of the two off-lying rocks. Five were occupied, two with one egg and three with two. No young were found, and a number of unoccupied but recently refurbished

nests were seen, suggesting that the breeding season had only just begun. The nests were scrapes in the rock, roughly lined with dried twigs and crumbling vegetable matter. Some 150 - 200 birds were wheeling over the rocks during the visit, and many settled as soon as the intruders withdrew. On Vatu-i-ra on 26 June remains of similar nests with a few fragments of eggs were found, and a few Black-naped Terns were seen on the rocks nearby. ROM also suspected strongly that this species was breeding on rocks off Nanuya-i-ra from which about 200 birds were disturbed on 11 March. A swell made close approach or landing impossible. Clunie reported that the species was present in 1974 on small rock islets off Vatulele and at Vorovoro Island off the north coast of Vanua Levu, and that it probably bred at both places. Except round breeding colonies ROM found this species to be uncommon, although one or two at a time were seen all round the coast except in Suva Harbour.

MKB sighted large numbers in the vicinity of Vomo Island in Nandi waters in April in mixed flocks with birds which were probably Spectacled Terns *Sterna lunata*. Mixed flocks with White-capped Noddies *Anous minutus* were also sighted in June and July 1974 in the coastal passage NE of Lautoka and south of Viti Levu in the Mbengga Passage. All other sightings were off the west coast of Vanua Levu in the vicinity of Nambouwala. MKB counted about 400 - 500 birds during boat trips to this place. About 150 were roosting at the outer end of the jetty at High Water whilst another large group occupied a hump of rock on the foreshore. At Low Water the birds settled on spits on the beach. They fished in small flocks of 12 - 30 birds amongst the White-capped Noddies which are plentiful in those waters. They flutter at the same height as the White-capped Noddies before dropping straight into the water to rise again almost immediately, nearly always with a fish. Some flocks had a single Crested Tern *Sterna (Thalasseus) bergii* flying in their midst.

Those observed at close quarters by ROM at Vatukatolu had a beautiful peach pink tinge to their breasts. This tinge was not apparent in the birds at Vatu-i-ra, and was not noted by MKB. He recorded that apart from their fragile fluttering flight when fishing, the most distinctive features were the very pale plumage in which there is only a hint of grey on the mantle, the very long black bill, and, at closer quarters, the black stripe through eye and nape.

Both ROM and MKB found the three brown terns *S. lunata, S. anaethetus* and *S. fuscata*, extremely difficult to tell apart in the field. Whilst most sightings could only be marked down under the heading of 'Brown Terns', ROM was almost certain in identifying Brown-winged *S. anaethetus* and definitely identified Sooty *S. fuscata* and Spectacled Terns *S. lunata*. He saw them nowhere in any great numbers, and noted that they occasionally appeared throughout the area covered except to seaward of Yalewa Kalou.

MKB saw large numbers of "probable" Spectacled Terns in Nandi Waters in company with Black-naped Terns. He positively identified two flying NW off the reefs near Vathia Wharf, and tentatively identified another off Coconut Point in Vanua Levu. He made only one uncertain sighting of a Brown-winged Tern which was perched on an oil can floating in Nandi Waters. There are no breeding records. The Sooty Tern has been ringed in Fijian Waters by JAFJ, and Clunie reported it to be a common falcon kill in Suva in 1972-74. MKB recorded no definite sightings. Difficulty in distinguishing between species has cast doubts on the older records of breeding of the other brown terns within the Fijis. No recognition features of very great value were recorded by MKB, whose tentative identifications of Brown-winged and Spectacled Terns were based on size comparison with the Sooty Tern, with which he was very familiar, and, in the case of the Spectacled Tern, on the paler appearance of the mantle, which was described as dusky grey as opposed to black or brown. He also noted that the Spectacled Terns had black caps, foreheads and crowns and no white eye strips, and that their bills were black.

A Fairy Tern *Sterna nereis* was tentatively identified by MKB off Yasawa Island—described as small with a grey mantle, white forehead, black eye-stripe and cap, and light bill.

Because of its inshore habitat, the Crested Tern *Sterna (Thalasseus) bergii* is more frequently seen than any other seabird in the Fijis. ROM found it to be present all round the coast of Viti Levu and those parts of Vanua Levu and other islands which he visited, although nowhere in large numbers. It was the only seabird commonly seen in the harbour at Suva, where it would swoop close to the wharves to investigate floating refuse, or perch on the harbour beacons and posts. MKB's observations tally, and he noted that the birds were generally seen singly or in pairs, sometimes congregating in larger groups at their fishing grounds, generally amongst the coastal reefs and passages. Except in Bligh Water, where ROM observed a few birds in the centre during the middle of the day, the species was not seen far from land. MKB noted that in daytime they would fish coastal waters, and that some areas, notably the Manava Passage, were particularly favoured, but that many of the species remained inactive on their roosts throughout the day. The species appeared to be more active at sunrise and sunset, and he believed that at these times the birds ranged out into Bligh Water to fish. In the evening they returned as it grew dark. He noted this behaviour near Vomo Island, Yasawa Island, and off Vathia Point. At sunset off Lautoka he watched the species set off towards the Western Islands, ignoring the small reef islets in between. Shoals of fish in the coastal waters often seemed more plentiful shortly after sunrise, and birds returning inshore congregated over these.

On several occasions Crested Terns were attracted by the

reflections of H.M.S. *Hydra*'s overside lights whilst the ship's company were fishing at overnight anchorages, but there were no other indications of activity during darkness. From 14 - 26 September ROM observed a number of Crested Terns, varying from 12 to between 20 and 30, roosting overnight on a narrow patch of coarse shingle between the high water line and the tree line on Nananu-i-ra Island. MKB noted that whilst beacons and rocks were used as roosts, particularly in harbours and in the Yasawas, elsewhere the species seemed to prefer sand spits which covered at high water. The beaches of mangrove islands were never used. Though favourite roosting areas were identified, there were no signs of breeding. In one much frequented area near Teci on Yasawa Island the local people declared in April 1974 that they had seen no sign of permanent colonies or breeding. ROM found that the roost occupied at Nananu-i-ra in September was not in use in the spring, nor in June. Since 1974, breeding by the species in Fiji has been confirmed.

MKB observed immature birds and adults in both breeding and non-breeding plumage, and intermediate between the two. All birds in large roosting groups, particularly in the Vathia Wharf area, were in breeding plumage and also predominated in small fishing groups, but many single birds were in non-breeding plumage. Off Yasawa Island pairs flying out to sea were often composed of an adult followed by an immature. The birds in breeding plumage had orange-yellow bills, whilst non-breeding birds had greeny-yellow bills. Immature birds had even paler bills. The outer primaries of immature birds appeared darker than in adults of the species, and particularly those in breeding plumage. The Crested Tern's strident and often continuous squealing call is unmistakable and often first attracts the observer's attention. Both single birds and those in groups, and both birds fishing and those on passage, were heard calling, though it seems likely that the call is used to advertise good fishing and to congregate a fishing flock. When fishing, the species tends to circle about 40 feet above the sea, periodically pointing their bills downwards, and plummetting to about five feet above the surface before making a shallow dive and snatching plunge.

Crested Terns were often the victims of Lesser Frigate-bird piracy, but groups of birds had evolved a most competent defence in which harassed birds were assisted by companions who dived astern of the Lesser Frigate-bird and swept up beneath it, thus forcing it up and away from its quarry.

The Common Noddy *Anous stolidus* is the less common noddy in the Fijis, the species in general being more oceanic than littoral in range. ROM noted occasional birds among flocks of the more common White-capped species, where they stood out by reason of their larger size, browner colouring, and less clearly cut white cap. He found no Common Noddies on Vatu-i-ra though

some were seen from time to time in the Vatu-i-ra Channel and off Ovalau. MKB sighted only four of the species in Fijian waters, when just south of Charybdis Reef. He noted their heavier form, dusky brown plumage with fainter shade on the head, blunt shallow-forked tails, and a harsh cry of "kwee, kwee".

The White-capped Noddy *Anous minutus* is by far the most common tern in Bligh Water and in the coastal areas off Ovalau and Eastern Viti Levu. The largest concentrations are in the eastern part of Bligh Water, in the area inshore off Charybdis Reef, and round Vatu-i-ra and SW Vanua Levu. The species is frequent in the other parts of the North Vitu Levu coastal passage as far west as Lautoka; fairly scattered, though sometimes in large flocks, in Nandi Waters; and grouped thickly at the Navula Passage. This distribution probably reflects the availability of the small fish which form their diet. Shoals of these were normally seen in coastal passages or among reefs. White-capped Noddies were rarely seen far off shore. MKB saw rafts on the water in company with Red-footed Boobies south and north of Ovalau en route for the Vatu-i-ra Channel but only four of the species in the vicinity of the Yasawas, in a group flying NE 11½ miles south of Yalewa Kalou. The Yasawas were more fruitful in the larger fish which form the diet of the Crested Tern, though there were indications that White-capped Noddies from the area of Nandi Water fed around the smaller islands of the fringing reefs SW of the group.

ROM found White-capped Noddies breeding on Vatu-i-ra, where on 26 Jun 63 between 1000 and 2000 pairs were re-occupying and rebuilding nests. Large numbers of nests were found all over the centre of the island in the lower layers of the scrub, usually not more than four to five feet above the ground. They were constructed of twigs and leaves cemented round a branch with mud. They varied in size from around six inches to over a foot in diameter. Many nests had birds either sitting on them or perched beside them. However, none sat closely and no nest investigated held either eggs or young. Large numbers of birds were perched on bushes in fairly tight groups, rising in solid clouds when disturbed. In May 1974 MKB sighted a flock of over 300 birds heading for Vatu-i-ra where, above the island, large flocks could be seen in flight. ROM noted that towards evening at all times of the year noddies from all but the outermost parts of Bligh Water could be seen converging on Vatu-i-ra. Both near Vatu-i-ra and further out into Bligh Water he saw rafts of these birds on the water, packed tightly into black masses.

Barritt (1975) described large rafts of the species in the area of reefs around Vathia Lai Lai. These rafts were sighted throughout his period in Bligh Water. They were absent only when moderate seas built up. He observed birds roosting in this area on beacons, rocks, and mangrove bushes, but the rafts were sighted in the same positions last thing at night and first thing in the morning

suggesting that the birds probably remained on the water overnight. On the other hand, the rafts were smaller at low water when birds congregated on the exposed reefs. Large rafts were also seen off West Vanua Levu, but it was suspected that most noddies in the area roosted in the luxuriant vegetation of Mbua Bay and the adjacent coastline. Barritt (1975) described an adult and an immature bird which had been examined in the hand. He noted that when on the water the noddies held their tails erect rather like tropic-birds. Feeding flocks of White-capped Noddies were usually intermingled with other species. Their feeding did not seem to be confined to any particular time of day. When fishing, they hold themselves stationary above a splashing fish by vigorous flapping, then momentarily settle on the water though barely ceasing their wingbeats before setting off again.

There are old records of breeding of the White Tern *Gygis alba*, and Clunie reports the species as an occasional Falcon kill at Suva in 1972 to 1974.

Conclusion

Bligh Water is in an area of great importance providing a home for a large resident population of seabirds. Highly fertile tracts of sea concentrate large numbers of birds, especially where there are good roosting sites available. Thus H.M.S. *Hydra*'s survey areas off Viti Levu from Vathia Point to Nananu-i-ra, and off Vanua Levu between Yandua and Coconut Point were comparatively heavily populated, even after making allowances for being the most intensively observed. Sustained periods of observation of the western part of Bligh Water and Nandi waters suggested that these areas were relatively barren, although over and around the islets and reefs large bird flocks were occasionally seen. This may be due to the narrower band of suitable coastal habitat and the greater concentration of *homo sapiens* in NW Viti Levu. Vatu-i-ra provides an undisturbed breeding place for a number of species. Other smaller breeding spots undoubtedly exist on offshore islets and undisturbed points on the coast, particularly in west Vanua Levu.

Summary

Observations by Captain R. O. Morris, R.N., and the author are compared with published literature, and with personal communications notably from Captain J. A. F. Jenkins, M.N., to provide an insight into the numbers and distribution of species of seabird in Fijian waters. Bligh Water in particular is an important area for a large resident population of seabirds and Vatu-i-ra provides an undisturbed breeding place for a number of species. The individual variation of some species, and the differing descriptions in the handbooks, highlight the difficulties for the observer in the field to make positive identifications, and point to the cause of possible misidentifications in the past.

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Michael Barritt, 25 Woodville Drive, Pembroke Park, Portsmouth, Hants PO1 2TQ.

Note. Dr W. R. P. Bourne has the following comments: There appears to be little published about the seabirds of Fiji, and some of the more important contributions were made some time ago, by E. L. Layard who was British Consul 1874-76 at the time of the establishment of British rule (Pro.Zool.Soc.London 1875:27-30, 149-151, 423-442. 1876: 420, 490-506. Ibis 1876: 137-157, 386-394, 498). His identifications and nomenclature are very erratic, but it may be useful to summarise his records with modern names shown in brackets:
"Procellaria coerula" (Collared Petrel *Pterodroma (leucoptera) brevipes)* and *"Puffinus nugax"* (Audubon's Shearwater *P. lherminieri*) commoner in the NE and bred inland on several islands, notably Viti Levu and Vanua Levu, and a larger petrel was seen with them at sea. Natives from Loma Loma were seen wearing tail-feathers of *"Phaethon rubricauda"* (Red-tailed Tropic-bird); *"Phaethon aethereus"* (Red-billed Tropic-bird - very improbable?) and *"Phaethon candidus"* (Yellow-billed Tropic-bird *P. lepturus)*

seen at sea with it in the north. *"Dysosporus sula"* (Red-footed Booby *Sula sula*?) seen at Mango and around the windward islands. *"Tachypetes aquila"* (species of Frigate-bird, which were not separated then) seen at Ovalau and around the windward islands. *"Sterna bergii"* occurred everywhere in small numbers and was said to breed in late November. *"Sterna panaya"* (Sooty Tern *S. fuscata*?) occurred in flocks at sea, and eggs were seen from Wailangilalla. *"Sterna lunata"* (Spectacled Tern?) were seen off Avalau in November, and in the SE *"Sterna melanauchen"* (Black-naped Tern *S. sumatrana*) seen everywhere and collected Ovalau and Viti Levu. *"Gygis alba"* (White Tern) seen off eastern Viti Levu and the windward islands. *"Anous stolidus"* (Common Noddy) seen at sea. *"Anous leucocapillus"* (White-capped Noddy *A. minutus*) seen at sea and eggs from Wailangilalla. *"Anous cinereus"* (Blue-grey Noddy *Procelsterna cerulea*?) seen in NW, with eggs from Nuku Levu.

NOTES ON SOME MUSEUM SPECIMENS OF PETRELS FROM FIJI

By Dr W. R. P. Bourne, M.B.O.U.

There is comparatively little information available about the breeding petrels of Fiji because they stay far out to sea by day and only come ashore to visit breeding sites in inaccessible places in the hills after dark. Over the years, however, collectors have sent a certain number of specimens to museums around the world some of which have useful data attached. From immature specimens it becomes possible to infer the date on which the egg was originally laid, though too much should not be deduced from this since some of these birds have prolonged breeding seasons. I have notes of the following species:

a. Fiji (or Macgillivray's) Petrel *Pterodromua macgillivrayi.* This is a rather distinct, small, heavily-built black gadfly petrel only known from a single immature male collected by the medical officer of the surveying vessel H.M.S. *Herald*, Dr F. M. Rayner, at Ngau Island in October 1855 and returned to London in spirit. It was apparently assumed to have been collected by the naturalist of the expedition, John MacGillivray, who had, however, already left the vessel in Sydney. Lt.-Cdr. A. C. F. David reports that it is listed as a young *Puffinus* among the specimens collected on the island, but that no other details appear to be recorded. Since, however, the whole specimen was preserved it was subsequently possible to study its anatomy. Its flight-feathers were still growing, so it seems likely to have been reared locally from an egg laid about June. It seems time a search was made for it.

b. Collared (or Gould's) Petrel *Pterodroma (leucoptera)*

brevipes. This is a small, more or less melanistic, "Cookilaria" petrel closely related to *P. leucoptera* which appears to have been taken in some numbers in Fiji in the last century, though there is often little data with specimens or it may be misleading, as with the bird said to have been taken in Wales in 1890. The earliest, merely labelled "Fiji", now in Paris, is dated 1850, and there is another dated 1864 at Leiden. There are six, including a feathered chick at Cambridge, said to have been taken from holes among the roots of trees growing in thick bush at 1,500 - 3,000 ft at Matai on Viti Levu (where they were known as "Riko riko" or "Rokorokoyawa") in June 1875, and three years later E. L. Layard appears to have taken three more, including two adults now at Liverpool, and a juvenile said to come from the upper Rewa river in March now at Sydney. In New York there are two birds collected by The Whitney South Sea Expedition in Kandavu Island in June 1925, and recently Fergus Clunie collected the remains of an adult from a Peregrine eyrie at the General Post Office, Viti Levu, on 16 June 1972 and those of a fledging chick there on the following 27 February. It therefore appears that the species must breed throughout the year and still survives in Fiji.

c. Tahiti Petrel *Pterodroma rostrata*. An immature female with growing flight-feathers of the nominate race in the Wellington Museum was collected on Taveuni Island on 9 October 1972, which implies that it may have been reared locally from an egg laid about April.

d. Wedge-tailed Shearwater *Puffinus pacificus*. A series were taken by the Whitney South Sea Expedition on or near Kandavu Island on 9 November 1924, when they are normally preparing to lay in the southern hemisphere, which agrees with the discovery of a chick by Captain R. O. Morris, R.N., on Nananu-i-ra on 11 March 1963.

e. Audubon's Shearwater *Puffinus lherminieri*. A bird in fresh plumage with growing flight-feathers at Liverpool was obtained by Layard's son on the Rewa river, Viti Levu, on 8 August 1875, and may have fledged from an egg laid about the beginning of April.

Thus, in general, it seems possible that the Wedge-tailed Shearwater and most Collared Petrels nest in the local summer, and Audubon's Shearwater and the Fiji and Tahiti Petrels in the local winter. The first usually has a well-defined summer breeding-season elsewhere but the others, and especially the Collared Petrel, may eventually prove to have prolonged breeding-seasons.

MIGRANTS IN THE WESTERN ATLANTIC — AUTUMN 1978

Captain P. W. G. Chilman — S.S. *Leonia*

In 1977 I was fortunate enough to coincide with the spring migration whilst engaged in lightening operations off the Mississippi, as previously reported (*Sea Swallow* 28: 11-19).

In 1978 I was again in luck, this time encountering the autumn migration whilst on a voyage to Freeport, Grand Bahama, from the Persian Gulf, and back. My ship, S.S. *Leonia*, 318,000 tonnes dwt, being some 350 x 55 metres, provided a fair area for weary birds to settle on. Once again officers and crew knew of my interest in birds and were very helpful, some becoming quite interested themselves. The following notes cover the period 2-20 October.

The first sighting was of a small wader on 2 Oct in position 02°34′N 38°55′W, 300 miles off the northern coast of Brazil. It circled the ship a couple of times then continued south without coming close enough to be identified.

Two days later, when 395 miles ENE French Guiana, two Tree Swallows *Iridoprocne bicolor* arrived at about 0715 and stayed two hours. Very similar to a House Martin but without the white rump, one was an adult, the other immature with the upperparts brown. They flew about the ship, rested on various perches and were also observed on deck drinking from a pool of rainwater. At noon an immature Barn Swallow *Hirundo rustica erythrogaster* (a race of the European Swallow with buff underparts) was around a short while and another, also immature, arrived about 1640 and spent the night perched in the stores alleyway. In the morning it was very weak and was easily caught but it died soon afterwards. I took this, and other birds found later, home with me and, after showing them to my local ornithological society, sent them to the British Museum (see note below).

Next day, when 360 miles NNW Surinam, there were four Barn Swallows, an adult and three immatures flying around the ship. Also on board was a Yellow-billed Cuckoo *Coccyzus americanus*, a long slender bird with bright chestnut primaries which kept under cover amongst pipes most of the time.

On 7th a small wader, probably a Semipalmated Sandpiper *Ereunetes pusillus*, circled the ship a couple of times when in position 15°52′N 57°50′W (Guadaloupe 195 miles W).

Early on the 9th, when 70 miles north of the Virgin Islands, a group of at least five White-crowned Sparrows *Zonotrichia leucophrys* were reported on deck. Identification was a bit of a problem at first because they kept pretty well under cover and the

NOTE. For details of all birds examined in the hand see *Sea Swallow* 29: Table C 26-27—Ed.

head markings do not show up well at any distance on immatures. They were present all day on 9th and 10th and there was still one on board on the 11th, which I think was probably from this group.

During the day reports of tropical revolving storm 'Juliett' in the vicinity were received and in the afternoon the weather deteriorated rapidly as the storm came up behind us although the wind never rose above force 4. The sky turned an unpleasant silvery colour with low scudding cloud, a phenomenon that I'd read about but never seen before. About 1700, when 140 miles north of Puerto Rico, a Zenaida Dove *Zenaida aurita* was on board - similar to a Turtle Dove *Streptopelia turtur* with big black spots on the closed wings.

At 1830 after getting another weather report with great difficulty because of atmospherics, I found that 'Juliett' was going to collide with us about midnight so turned away to the south and the weather soon improved. In fact the storm collapsed during the night but I wasn't to know that would happen. About 2130 I was rung up by a very indignant Officer of the Watch who told me that he'd been hit by a bird on the wing of the bridge - scared him stiff! The bird was stunned and he'd caught it and it turned out to be a Black-throated Green Warbler *Dendroica virens* in autumn plumage but with enough of a dark collar on the throat to provide identification. Puerto Rico was then 117 miles south.

At 0600 next day I resumed passage towards Freeport and then had a walk round the deck. There were still at least five White-crowned Sparrows, a Zenaida Dove and a Black-throated Green Warbler on board, presumably the ones seen on 9th, and also a Barn Swallow and three Myrtle Warblers *Dendroica coronata.* These are one of the easier of the greenish-brown autumn warblers to identify as they always have a bright yellow rump if one can get close enough to see. There was also an unidentified warbler and a small brown bird on board. At about 0900 two immature Yellow-crowned Night Herons *Nyctanassa violacea* arrived from the northwest and settled on board, moving about under the pipelines and rarely venturing out into the open. Easy enough to identify as young Night Herons, brown above with numerous lines of grey and white spots and heavily streaked below, but it wasn't until I put them up that I was able to identify them as Yellow-crowned rather than Black-crowned by the fact that their legs and feet extended well beyond the tail. One remained on board until the morning of the 11th. During the period 0615 to 0930 a Cattle Egret *Bubulcus ibis* was seen flying southeast low over the water and two separate waders flying southwest. Also during this period at least 150 warblers were seen flying steadily SSW, usually in groups of about ten but also twos and threes and one flock of twenty-three.

Later in the morning a Nighthawk *Chordeiles minor* was seen flying round about the ship, an unmistakable 'nightjar' distinguished by a fore and aft white bar across the wings near the

tip. Also on board a probable Semipalmated Sandpiper and another Myrtle Warbler. (Position: 20°19′N 67°40′W. Puerto Rico 108 miles S).

Still on board in the later afternoon were a Yellow-crowned Night Heron, one White-crowned Sparrow, one Myrtle Warbler, one immature Barn Swallow, two similar unidentified warblers and several other small birds which I couldn't get a good look at. An Ovenbird *Seiurus aurocapillus* was found dead and examined and measured. (1700 position: 20°58′N 68°10′W. Hispaniola 112 miles SW.)

Shortly before 0800 on 11th two Snowy Egrets *Leucophoyx thula* were seen on the foredeck. Very like Little Egrets *Egretta garzetta* with the same yellow feet but with yellow at the base of the bill. They were identified as immatures by the yellow line down the back of the legs. (22°38′N 70°21′W. Turks and Caicos Islands 82 miles SW.)

Later in the morning a Hooded Warbler *Wilsonia citrina* was seen on deck, almost impossible to tell from a good many others in autumn plumage unless one can see the tail which has a white spot at each of the outer corners; this is more obvious from below. A Blackpoll Warbler *Dendroica striata* was found dead, another caught which soon died and a probable third seen. I find these one of the easiest of the autumn warblers to identify as they are always very streaky on the back. At about 1215 four Cattle Egrets landed on board and remained until after dark, one in breeding plumage with buff on head, breast and back and the other three all white. As I have mentioned before, the spread of this species must have been very rapid as my American book published in 1964 does not even mention them as accidentals. Also on board another Nighthawk which remained until dark. It rested in the usual squatting position but always on pipes or beams not on the deck as I have seen other species of nightjar do. A Myrtle Warbler and also a Cliff Swallow *Petrochelidon pyrrhonota* were first seen about this time. The latter was picked up in an exhausted state about 1745 and died later - like a swallow at first glance but it has a square tail and yellowish chestnut rump.

In the later afternoon a Semipalmated Sandpiper and a Belted Kingfisher *Megaceryle alcyon* were on board also a probable Blackpoll Warbler and another unidentified warbler. A single and a pair of warblers passed flying SSW. The Semipalmated Sandpiper is very small with a short stoutish bill and dark legs. The Kingfisher was very wary and spent most of the time perched outboard of the spare anchor so I wasn't able to see more than its big bill and black head with shaggy crest. (1700 position: 23°30′N 71°50′W. Mayaguana Island, South Bahamas 86 miles SW.)

At about 0900 on 12th an Ovenbird was discovered in the Cargo Control Room - like a very small thrush with an orange cap. I tried to catch it but it was so frantic that I gave up and drove it

back into the open before it damaged itself. Later in the morning a female Hooded Warbler was caught and measured. An immature Peregrine, (Americans call them Duck Hawks) *Falco peregrinus anatum*, was on board for about forty minutes before departing southwest. I was able to get reasonably close and have a very good look at it; it seemed to have a much paler crown than usual. Also on board was a Tree Swallow, and a Great Blue Heron *Ardea herodias* passed flying steadily south. (0900 position: 24°47′N 74°28′W. San Salvador Island, South Bahamas 40 miles S.)

In the afternoon an immature Peregrine arrived about 1520 and another about 1820, one of these probably stayed on board overnight as one was seen shortly after daylight on the 13th. They were both much as the one seen in the morning except that one seen close to had a dark brown crown with a pale cream forehead. A flock of six Great Blue Herons circled the ship several times before departing southwest - very similar in appearance but larger than a Grey Heron *Ardea cinerea* with the underside grey-brown and orange thighs. Most, if not all, of them were flying with their bills open. A Hooded Warbler was seen, possibly the one caught earlier. Nine Blackpoll Warblers were on the poop, one of which seemed to be a juvenile by the way it was begging from the others and a Black-throated Green Warbler was seen to catch and eat a moth. There were at least seven other warblers on board, of at least three different kinds and one warbler was seen to pass SSW. A Belted Kingfisher was with the ship most of the afternoon, sometimes on board but mainly flying with the ship and was seen to splash into the water to catch a fish several times. I never managed to get a very good look at its chest but think it was a male as there did not seem to be any sign of chestnut band of the female. (1700 position: 25°24′N 75°50′W. Eleuthera Island, Bahamas 23 miles WSW.)

13th. Early in the morning while approaching Freeport a flock of thirteen Great Blue Herons was seen flying steadily southeast low over the water. As there was no berth available at Freeport, and there is no anchorage suitable for large ships, we pulled offshore and drifted after picking up mail and stores off Freeport. In the afternoon an immature Peregrine was on board and flying round, possibly the one seen in the morning but I don't think so.

14th was spent drifting all day 15 miles SSE Grand Bahama Island. At 0800 there was an immature Peregrine on board, possibly the one from yesterday. Shortly afterwards the Chinese crew disturbed a Burrowing Owl *Speotyto cunicularia* on the foc'slehead. They were delighted about this as apparently owls are lucky in China. The Chinese for owl is Mau Tau Ying which means Cat Headed Eagle - very appropriate I think. (0800 position: 26°01′N 78°22′W. Grand Bahama Island 33 miles NW. Stirrup Key 25 miles SE x E.)

In the afternoon there were two Burrowing Owls, both very

tame and I was able to approach within six feet of one and about twenty of the other. Small, long legged owls, brown with white spots above and confused dark bars and spots below, they made a chirring noise and bobbed up and down when approached. Also on board were two Black-throated Blue Warblers *Dendroica caerulescens*, a Blackpoll Warbler and two other different warblers. (1700 position: 26°20′N 78°35′W. Freeport 10 miles NNW.)

At about 0500 next day, while still in the same area a heavy rain squall passed over the ship and at least sixty small birds arrived on board. Most, if not all, were warblers. Several Magnolia Warblers *Dendroica magnolia* were noted, distinguished by a big white square on each side of the tail half-way along; at least six Black-throated Blue Warblers, males in full plumage, including one which flew into a wheelhouse window and was stunned and caught, and a Worm-eating Warbler *Helmintheros vermivorus* which did the same and died soon afterwards. The Black-throated Blue Warbler soon recovered but had apparently hurt its wing and was unable to fly. It spent the day in the wheelhouse and appeared quite unafraid. When we berthed in the evening the pilot took it ashore and released it in his garden. He subsequently reported that it seemed to be doing well. The male Black-throated Blue Warbler is a beautiful little bird, grey blue above with a black face and throat and white below, the females and immatures are rather plain olive green, the distinguishing mark being a small white spot at the angle of the closed wing which, unfortunately, is often missing or scarcely visible. The Worm-eating Warbler is a rather dull little bird except for striking white, black and buff stripes on the head which are a good recognition mark.

During the morning many warblers were seen flying south, including several flocks, but none were seen to land. The two Burrowing Owls were still on board also a Yellow-throated Warbler *Dendroica dominica*, which was closely seen a grey bird above with a white eyebrow that continues down the side of the neck and a bright yellow throat.

We berthed in the evening just as a front accompanied by heavy rain passed over. Whilst berthing a flock of about twenty-five Snowy Egrets circled the ship several times and many warblers were seen in the lights.

16th. Freeport Sea Island. 26°30′N 78°46.4 W. Pinder Point 0.55 miles NE. The two Burrowing Owls were on board all day and an American Kestrel *Falco sparverius* circled the ship in the late afternoon. A Yellowthroat *Geothlypis trichas*, a Black-throated Blue Warbler and a Blackpoll Warbler were found dead.

17th. Alongside all day. Many warblers seen flying south, some on board but not seen close to. One Burrowing Owl was still on board, seemingly unperturbed by people walking about, and a Peregrine was seen.

18th. Sailed 1400. Warblers were seen during the morning, passing and on board. The only one identified was a female American Redstart *Setophaga ruticilla*. In the afternoon a Pine Warbler *Dendroica pinus* was found dead.

19th. Heavy rain all day, no birds seen.

20th. A Great Blue Heron arrived in a rain squall at 0630 and stayed on board for about half an hour before departing south. (22°53′N 69°42′W. Grand Turk I. 115 miles WSW.)

A Burrowing Owl was seen on the foc'sle during the afternoon. The CPO said it was possibly the one from Freeport.

An immature Peregrine arrived about 1215 and stayed until dark; it landed from time to time but mainly glided alongside. It was seen to catch a small bird during the afternoon and plucked it while in flight. (1215 position: 22°24′N 68°24′W. Turks Island 162 miles WSW.)

A Cattle Egret was on board for about twenty minutes during the afternoon; it still had traces of buff on the back and throat but none on its head. A female American Redstart and an Ovenbird were also on board. (1520 position: 22°02′N 67°43 W. Hispaniola 190 miles SSW.)

The period provided a very memorable experience of landbirds but very few seabirds were seen. Two terns, probably Sandwich Terns *Thalasseus sandvicensis*, five Magnificent Frigatebirds *Fregata magnificens*, and one Brown Booby *Sula leucogaster* were the full total.

Captain P. W. G. Chilman, M.N., 15 Garbett Way, Bishopsgate, York YO2 1SF.

OCEAN WEATHER SHIP REPORTS 1980

Owing to pressures of other work J. H. Agnew has been unable to produce his usual analysis of seabirds this year, but the following landbirds were recorded by R. C. L. Aran on board *Admiral FitzRoy* during the period 22 Aug-21 Sep 80 and 18 Oct-10 Nov 80 whilst in the area of STATION LIMA (57°N 20°E - 210nm WSW Rockall, 450nm S. Iceland).

Grey Heron *Ardea cinerea*. One arrived 25 Aug. Took a little raw fish and water but died after 9 days on 3 Sep.

Greylag Goose *Anser anser*. On 24 Oct one seen swimming in sea close by ship.

Turnstone *Arenaria interpres*. 2 on board 15 Sep.

Purple Sandpiper *Calidris maritima*. One caught on well-deck 28 Oct, fed warm water and sugar but died next day.

Sanderling *Calidris alba*. One flew past SW on 9 Sep.

Turtle Dove *Streptopelia turtur*. One on 19 Sep.

Meadow-pipit *Anthus pratensis*. One on 21 Oct fed and caged but died.

Pied Wagtail *Motacilla alba*. One on 22 Aug.

Willow Warbler *Phylloscopus trochilus* (Juv). One on 21 Oct caged and fed but died.

Wheatear *Oenanthe oenanthe*. One on 24 Aug, 2 on 25 Aug (caged and fed but both died 26), one S. 2 hrs 29 Aug, 14 on 12 Sep early a.m. but all gone by 1400, 12 early a.m. 13 Sep (last one departed 1000 on 14th), 2 on 16 Sep, one on 6 Nov.

Redwing *Turdus iliacus*. 3 on 18 Oct, one on 21 Oct caged and fed—released on arrival Loch Striven 1 Nov, 7 on 24 Oct, one on 6 Nov—caught and fed.
Chaffinch *Fringilla coelebs*. 2 on 21 Oct—caged and fed, released on return Loch Striven 1 Nov
Starling *Sturnus vulgaris*. 3 on 24 Oct, one on 31 Oct.

On 13 Sep a bunting, possibly a Cirl Bunting *Emberiza circus* was noted on board. At 0800 on 1 Nov when in position 56°03′N 11°37′W (120′NW Tory Is.) the following arrived on board and stayed until dusk. The wind at the time was SW/11 kts.

Redwing (13).
Wheatear (3)—thought to be Greenland race *O. o. leucorrhoa*.
Meadow Pipit (1).
Chaffinch (3M, 3F).
Spotted Flycatcher *Musicapa striata* (1).
Blackcap *Sylvia atricapilla* (1F).

At 1000 a group of 50 Starlings settled on the anchor chains and at 1100, when in position 55°55′N 10°26′W (80′ NW Tory Is.), the following arrived and were caged and fed:

Purple Sandpiper (1).
Chaffinch (1F, 3M).
Serin *Serinus canarius* (1).
Siskin *Carduelis spinus* (1M).

The last two both died, but the remainder were released on arrival Loch Striven. On 8 Nov when in position 56°43′N 17°25′W (120 SW Rockall) 5 Redwings were found sheltering on the balloon shed, and on 10 Nov, when just off Rathlin Island, a Water Rail *Rallus aquaticus* was seen on deck (wind 280° 13 kts.).

M. B. C.

NOTES ON SEABIRD REPORTS RECEIVED 1979-1980

By Stephen E. Chapman, B.Sc., M.N.I., M.B.O.U.

These notes aim to provide feedback to members in a brief summary and analysis of observations recorded on Sea Bird Report Sheets and Census Sheets from 21 active seagoing members. They cover approximately 40 reports received in a twelve-month period from mid-year 1979 to mid-year 1980. Although the majority of observations relate to 1979/80 the complete period covered by the reports received is from 1977-80, due to the delay in receiving reports from some members on long voyages.

It is difficult to know whether it is more useful to group sightings geographically or by families/species. Since many species of seabirds, particularly albatrosses, petrels and shearwaters, do not recognise geographic boundaries in their wanderings I have adopted the latter format, following the classical order and nomenclature (with modifications) of W. B. Alexander's systematic list in *Birds of the Ocean*, second edition 1955.

Not surprisingly, the greatest number of voyage reports (36%)

come from the North Atlantic Ocean (trans-Atlantic, and passages to the Cape or Panama). About 20% relate to the South Atlantic Ocean (passages U.K. to Cape) and 20% relate to the Indian Ocean (Suez/Cape to Singapore and Japan). The remainder are from the North and South Pacific Oceans including the Australian coast and useful data from rig-tenders operating in the Persian Gulf and in the South China Sea (off Borneo).

Report forms considered in this analysis were received from the following observers, who are subsequently identified by their initials:

Radio Officer N. A. Allison—M.V. *Anco Empress*. Suez, Kwinana, Melbourne, Townsville, Marquesas Islands, Panama. May-July 1979 (11 page report). Panama Canal, Yokohama via. Hawaiian Islands. June 1980 (3 page report).

Cadet T. M. Barry—M.V. *Clan Macgregor*. U.K., Suez, East Africa. March and August 1979 (2 page report). M.V. *Kinpurnie Universal*. Nantes, Suez, Basrah. January 1980 (2 page report).

Captain P. W. G. Chilman—S.S. *Lembulus*. Mississippi, Cape, Mena al Fahal. April-June 1977 (5 census sheets). S.S. *Litiopa*. Fos, Forcados, Bonny, Rotterdam, Kharg Island, Durban, Nova Scotia. October 1977-February 1978 (12 census sheets). S.S. *Leonia*. Cape Town, Freeport, Ras Tannurah. June-September 1978 (8 census sheets).

Captain J. K. Currie—M.V. *Winchester Castle*. Hamburg, Cape Town. April-May 1979 (1 page report).

Radio Officer M. G. Finn—M.V. *City of Exeter*. Cape Wrath, Belle Island, Gibraltar, Suez, Singapore, Canton. July-September 1979 (census sheets). New Zealand, Shanghai via. New Guinea, Hong Kong, Si Racha (Thailand), Suez. December 1979-February 1980 (2 page report and 2 census sheets). M.V. *Devonbrook*. Cape Wrath, Philadelphia, Antwerp. June-July 1980 (1 page report and 1 census sheet).

Engineer Officer S. J. Hingston—M.V. *Sugar Trader*. Panama, Los Angeles, Portland (Oregon), Pusan (S. Korea). July-August 1978 (4 page report). Antwerp, Aden, Japan, Portland (U.S.A.), Pusan, Singapore, Suez. March-August 1979 (25 page report and census sheets).

C.P.O. T. H. Hunter, OEA 1—H.M.S. *Falmouth*. U.K., Mediterranean, Seychelles, Australia, New Zealand, Singapore, Suez. May-November 1979 (5 page report).

2nd Officer R. W. Joughin—M.V. *Dart Canada*. Southampton, Halifax, New York, Norfolk Va., Southampton. July-September 1978 (2 page report). Le Havre, Halifax, Norfolk, Southampton. July-August 1979.

2nd Officer C. R. Lisher—M.V. *Mishref*. Bombay, Singapore. February 1979 (1 page report).

3rd Officer A. R. Louch—R.R.S. *Challenger*. Outer Hebrides,

Rockall sea area, west of Ireland, Porcupine Bank. April-May 1980 (2 page report).

Chief Officer P. G. Morris—M.V. *Alain*. Singapore, Suez, Zueitina, Cape Town, Lombok Strait. August-November 1979 (4 page report). Persian Gulf, Oman Gulf. February-March 1979 (1 page report). Two voyages Persian Gulf, Malacca Strait, Japan. April-May 1979 (3 page report).

Captain W. A. Murison—M.V. *Mairangi Bay*. Rotterdam, Melbourne. June-August 1979.

Mrs C. Roberts—M.V. *Fjord Liner*. Singapore. Durban, Cape Town, East London, Shimizu, Yokohama, Mombasa. February-April 1980 (12 page report).

Captain K. Salwegter—M.V. *Amstelmeer*. Five crossings of North Atlantic. January-August 1979 (10 census sheets). Four crossings of North Pacific (Japan-U.S.A.). September 1979-January 1980 (7 census sheets).

Captain D. M. Simpson—M.V. *Pacific Supplier*. Persian Gulf, October 1979 (1 page report).
M.V. *Pacific Teak*. North Borneo offshore March-June 1979 (2 page report summarising many weeks' observations).

Captain J. W. Waldie—M.V. *Stirling Bridge*. Cape Town, Kakogawa, Kobe, Port Kembla, Richards Bay, Denmark. September-December 1978 (6 page report). M.V. *Cheshire*. Hong Kong, Chinwangtao, Richards Bay, Hamburg. April-June 1979 (4 page report). M.V. *Berkshire*. Houston, Brazil, Port Elizabeth, Boulogne, Key West, New Orleans, Fortaleza. September 1979 (7 page report).

Mr and Mrs B. Watts—S.S. *Canberra*. Southampton, Everglades, Panama, San Francisco, Sydney. January-February 1980 (11 page report).

Radio Officer W. Weitkowitz—M.V. *Columbus California*. Two voyages U.S., east coast to Australia, via. Panama, Tahiti, Auckland, Sydney, Melbourne, Pitcairn, Galapagos, Panama, West Indies, Vera Cruz. July 1978-January 1979 (42 page report). M.V. *Hans Sachs*. Four trans-Atlantic voyages. May-June 1979 (6 page report). M.V. *Fuerte Ventura*. Three round voyages northern France to Richards Bay and return, October 1979-March 1980 (38 page report).

Captain J. W. Welch—M.V. *Mairangi Bay*. Auckland, Cape Horn, Flushing. January-February 1979 (6 page report). S.S. *Flinders Bay*. South of Australia coastal, July 1979 (2 page report).

Captain R. R. Will—M.V. *Clan Menzies*. U.K., Suez and Red Sea. April-May 1979 (1 page report). M.V. *King George*. U.K., Rio de Janeiro, Taranto (Italy), Tubarao (Brazil) and return to Italy. January-May 1980 (4 page report).

Captain A. S. Young—M.V. *Venetia*. Chittagong, Singapore,

Dampier, Cape Town, Dunkirk. December 1978-March 1979 (6 page report). M.V. *Vimeira*. Europort, east coast U.S., River Plate, Paranagua, Europort. June-September 1979 (8 page report).

NOTES ON SPECIES

PENGUINS *SPHENISCIDAE*

The few reports received from expected areas do not add to existing information. Curiously no sightings were reported from coast of South Australia.

Jackass Penguin *Spheniscus demersus*. Noted by PWGC Nov 77 near C. Agulhas and by JKC May 79 in Table Bay. Small groups noted by WW Oct and Dec 79 NW of Cape Town.

Magellan Penguin *Spheniscus magellanicus*. Noted 79 by JWWe Feb on passage round Cape Horn, ASY in July at Montevideo and in Aug at Rio de la Plata.

ALBATROSSES *DIOMEDEIDAE*

Wandering Albatross *Diomedea exulans*

Frequently reported from vessels south of latitude 30°S in South Atlantic and Indian Oceans on passages via the Cape. Numbers seldom exceeding 10 birds at any one time. However, JWWe recorded 16 at 44°30′S 168°43′W in Jan 79 and WW up to 15 (mostly adults) following ship in northerly gale, Western Tasman Sea 11 Nov 78. Records within the tropics include single immature birds in a less commonly traversed region of the South Atlantic at 19°S 8°W Jul 78, PWGC, and on Cape route at 14°28′S 01°05′E, 16°30′S 3°00′E Oct 79, PGM: and 16°43′S 3°13′E (sea temp 22°C) Nov 79, WW. The latter observer making subsequent passages through this area Dec 79, Jan, Feb and Mar 80 reported nil counts.

Royal Albatross *Diomedea epomophora*

The only positive sighting recorded refers to several adults apparently of this species off Western Australia in position 34°56′S 114°49′E on 4 Jun 79 (NAA). Birds were described with 'dark trailing edges to wing right to the body. No speckling on back. Legs greyish. Bill pink'. It is puzzling that more members do not report this species more frequently. Mr Peter Harrison's article on page 68 describes the field characteristics that distinguish Royal and Wandering Albatrosses.

Waved Albatross *Diomedea irrorata*

Reported from seas around the Galapagos Islands where it breeds. Estimated total of 15 individuals during the day, passing close south of islands, Nov 78 (WW). 3 birds 140 miles NW of islands Jul 79 (NAA).

Short-tailed Albatross *Diomedea albatrus*

One positive sighting only of this rare albatross, an immature, 19 May 79, 50°47′N 179°25′W (SJH). At the time vessel was hove to in very heavy seas and swell with storm force SE winds. Sea temperature 5.2°C. The supporting sketches and description refer to the bird's heavy build in flight, dark blackish brown plumage, slightly paler underparts, striking pink bill, and legs and feet dark pink. On the sea it had a bulky appearance alongside a Laysan Albatross.

Black-footed Albatross *Diomedea nigripes*

Systematic daily censuses by SJH Apr/May 79 on North Pacific east and westbound passages. Sighted on four consecutive voyages, Sep 79-Jan 80, almost daily but not recorded from 50°N 138°W to 41°N 170°W during December storms (KS).

Laysan Albatross *Diomedea immutabilis*

Widely reported from North Pacific with interesting concentration of 70 - 100 birds in 49°34′N 169°16′W on 23 Apr 79 (SJH).

Black-browed Albatross *Diomedea melanophris*

Numbers of records from expected latitudes in the Southern Oceans. PWGC reported an estimated gathering of 5000, mostly adults in moult around trawlers on the continental shelf edge to northwest of Cape Town, in 33°29′S 17°36′E on 18 May 77. On passage from Paranagua to Europe seen north to 18°20 S 36°54′W, a single adult by ASY on 31 Aug 79.

Buller's Albatross *Diomedea bulleri*

Sighted in New Zealand waters in November and a single individual at 33°43′S 173°36′W on 2 Nov 78 (WW).

Shy Albatross *Diomedea cauta*

Many sightings from vessels on coastal passages of South African waters in most months (PWGC/WW) and Bass Strait in Aug and Nov (WW).

Yellow-nosed Albatross *Diomedea chlororhynchos*

Probably the most frequently reported of the albatrosses. Many noted on passages round the Cape (WW) with a few birds north to 25°05′S 10°10′E in Nov 79. No sightings from the tropics.

Grey-headed Albatross *Diomedea chrysostoma*

Reported from the Tasman Sea, Aug and Nov 78 (WW) and approaching Cape Horn eastbound in Feb 79 (JWWe).

FULMARS, PRIONS, PETRELS, SHEARWATERS *PROCELLARIIDAE*

Giant Petrel *Macronectes giganteus/halli*

Members' sightings are seldom supported by convincing notes

that give the analyst confidence that the observer has separated these two difficult species. No records reported away from the areas where either *M. giganteus* or *M. halli* are to be expected.

Pintado Petrel *Daption capensis*

Reported on passages around the Cape in Jun, Aug, Sep and Nov 78 (PWGC) and Oct and Nov 79 (JWW, WW). On 3 Nov 78 PWGC sighted a partial albino in 26°56′S 4°14′E. En route for the River Plate the species was first encountered by ASY off the Brazil coast, 21°59′S 39°18′W, on 19 Jul 79, whilst WW in the tropical South Pacific reports an isolated record from 11°35′S 106°36′W on 9 Sep 78, and PWGC a similar record from the Atlantic at 21°10′S, 5°08′W on 25 Sep 78.

Fulmar *Fulmarus glacialis*

The following excellent series of census counts by SJH in the North Pacific Ocean demonstrate the variability that systematic quantitative data can provide, and give a useful comparison for subsequent data.

Date 1979	*Noon position*	*Birds per hour*	*Sea Temp. (°C)*	*Comments*
24 Apr	49°55′N 160°32′W	9, 6, 2	5.6	
15 May	52°59′N 153°26′W	280, 76, 117, 84	—	Mostly dark phase
16 May	52°22′N 161°37′W	88, 6, 4, 20	6.5	
17 May	51°12′N 169°54′W	120, 50	6.4	Mostly dark phase
22 May	48°11′N 172°23′E	120, 18, 8, 33	3.7	Mostly dark phase

Southern Fulmar *Fulmarus glacialoides*

Small numbers sighted on crossing of Tasman Sea, Aug 78 (WW). One at 30°15′S 11°03′E on 22 Sep 78 (PWGC) and one 50 miles west of C. Agulhas (35°S) 12 Dec 78 (JWW). Curiously not reported from the east coast of South America in Jul-Aug 79 (ASY).

Prions *Pachyptila*

These species are so similar on the wing, differing mainly in the bill shape, that from a ship they are almost impossible to identify with certainty. It would therefore be of special value from a distribution viewpoint to have Bird in Hand data for these species when found on board.

On the Cape route prions were reported in May/Jun 78, 79 but few in Oct 79 and nil recorded by WW Dec 79 through Mar 80 on three return passages. 8 stragglers were reported at 28°38′S 7°46′E on 18 Aug 78, sea temperature 18°C (PWGC). ASY reported vast numbers on the other side of the South Atlantic at 32°45′S 51°01′W on 22 Jul 79. Rounding Cape Horn JWWe reported very much smaller numbers in Feb 79.

Crossing the South Pacific from Panama to Australia WW first encountered them in small groups at 34°27′S 179°27′E in Aug 78, increasing to vast numbers on crossing the Tasman Sea southwestwards. On a subsequent voyage in the austral summer

they were first reported, in small numbers, north of North Island, New Zealand, in Nov 78.

White-chinned Petrel *Procellaria aequinoctialis*

One of the most frequently reported large petrels but one whose widespread distribution in the southern latitudes is not reflected in the members' observations. Records for the period under review relate almost entirely to the Cape route and cover all months except Apr and Jul. Two extra-limital sightings are worth citing in detail. WW first encountered the species southbound with several following his ship in 18°27′S 4°04′E on 17 Oct, and subsequently on the return passage last reported birds in 16°46′S 3°13′E on 4 Nov 79. Away from the Cape route ASY reported vast numbers when at anchor 25 miles off Punta Negra, River Plate estuary, on 23 Jul 79.

Streaked Shearwater *Puffinus leucomelas*

Several observers recorded this large petrel in large flocks southeast of the Japanese Islands from Apr to Nov. Notes from two observers are of particular interest. DMS standing by the Tembungo Platform for 6 weeks at position 6°37′N 115°47′E, 34 miles off Sabah, reports 1 on 18th, 10 on 23rd and 3 on 27th Mar 79. ASY on passage from Dampier to Cape Town saw 40/50 birds in 20°24′S 113°30′E on 6 Feb 79 which he thought might be of this species. His description "medium/large, light chocolate upperparts, white underparts and light head" unfortunately is not conclusive.

Cory's Shearwater *Calonectris diomedea*

In the western Mediterranean WW reported small groups at 40°57′N 3°42′E on 30 May 79 and several at 41°44′N 4°54′E on 12 Jun 79. Off Tunisia, 37°38′N 9°56′E, SJH counted about 150 during a two-hour census watch on 1 Mar 79. Of many records from the North Atlantic PWGC sighted 5 at 33°55′N 15°54′W on 12 Nov 77 and 31 at 9°15′N 16°42′W four days later. Crossing from Norfolk, Virginia WW reported many at 37°43′N 40°09′W on 23 May 79, and then daily to the Strait of Gibraltar. In the South Atlantic in winter WW saw large groups at 33°51′S 17°46′E on 22 Dec 79 and many in the coastal waters between Keymouth and C. Recife on 29 Dec 79. On a subsequent passage WW saw small groups at 12°43′S 00°08′W on 21 Feb 80 and then saw the species daily with many off C. Columbine and at 34°43′S 22°25′E on 26 and 27 Feb 80.

Pink-footed Shearwater *Puffinus creatopus*

The few reports received of this species tend to support the current distribution knowledge, showing a dispersal from breeding on South Pacific islands (Juan Fernandez and Mocha Islands) to the north latitudes during the southern winter. SJH had 3 following astern for more than an hour at 7°14′N 80°02′W on 2 Jul 78 and saw an isolated bird at 47°29′N 127°01′W on 12 May 79. On

passage from Portland to Pusan (South Korea) census counts showed the following average numbers: 2 per hour 52°22′N 161°37′W on 16 May and 5 per hour 51°12′N 169°54′W on 17 May 79. Much further south WW saw several at 3°49′N 90°07′W on 20 Oct 78 and many at 4°40′N 82°28′W on 12 Dec 78.

Pale-footed Shearwater *Puffinus carneipes*

Reports received from the South Pacific and Indian Oceans. WW recorded few/several birds daily between 39°S 150°E on 23 Nov and 34°S 179°E on 27 Nov 79. SJH reported birds between 3°N 66°E on 5 Aug and 5°N 55°E on 7 Aug 79.

Great Shearwater *Puffinus gravis*

Members' sightings cover a wide area of the North and South Atlantic. The conclusions from an analysis of this data do not conflict with the present knowledge of the post-breeding dispersal and wintering areas of this shearwater. For an excellent summary of this topic I recommend observers refer to *Birds of the Western Palearctic*, 1:141. MGF saw 11 flying around icebergs 120 miles NE of Belle Isle on 2 Aug 79. The following year in late Jun he encountered unidentified shearwaters from 57°N 22°W to 47°N 46°W, which were described as having light brown upperparts and white below with white patches on the upper wing. It is possible that these birds were *P. gravis* in wing moult. ASY saw small numbers he described as moving south at 18°20′S 36°54′W and 13°31′S 35°13′W on 31 Aug and 1 Sep 79 respectively.

Wedge-tailed Shearwater *Puffinus pacificus*

Several dark phase birds reported in the Gulf of Panama off Cabo Mala on 21 Jul and 14 Nov 78 (WW) and in the eastern Pacific at 5°56′N 83°47′W, otherwise sightings conform to the expected areas in the Pacific and Indian Oceans. An increasing number of individuals are being reported in the Indian Ocean within the Agulhas current, Batchelor 1980. Records have been made in both summer and winter months but no seasonal pattern is apparent. It would be useful if observers in these waters could look out for these birds in support of the onshore watches conducted by the African Seabird Group.

Grey-backed Shearwater *Puffinus bulleri*

The only positive records were received from WW in the western South Pacific. 15 were sighted at 32°48′S 175°19′W on 31 Aug 78, and later it was recorded as very plentiful near Three Kings Island, New Zealand in Nov 78 at which time one would expect the birds to be in the early stages of breeding on the nearby islands.

Sooty and Short-tailed Shearwaters *Puffinus griseus* and *Puffinus tenuirostris*

Pacific sightings of these two shearwaters sometimes raise doubts about which particular species is involved and large flocks

GREY-BACKED SHEARWATER *Puffinus bulleri*
South Pacific Ocean
Photo: R.N.B.W.S.

may include both species. Unfortunately, observers seldom detail how they differentiate between the two when "positively" recording one or the other. It would be useful to have descriptive notes from experienced observers on this aspect.

SJH saw both species, almost daily in widely varying numbers, during an Apr 79 crossing from Japan to Portland on a great circle track. In the South Atlantic the confusion between these two species of course does not arise. ASY reports vast numbers of *P. griseus* in the River Plate estuary on 23 Jul 79. The core of one huge flock, which included *P. aequinoctialis*, showed up on the radar as ¾ mile long echo.

Manx Shearwater *Puffinus puffinus*

From the R.S.S. *Challenger* ARL saw 6 birds off St. Kilda at 57°30′N 9°00′W on 23 Apr, 4 at 50°23′N 13°13′W on 20 May and 12 at 55°20′N 5°50′W on 25 May 80. In the central Atlantic WW saw small groups at 43°13′N 38°05′W on 7 May 79.

Little Shearwater *Puffinus assimilis*

In the southwest Pacific WW saw small groups off Three Kings Island, New Zealand in Aug and Nov, at 32°48′S 175°19′W on 31 Aug and a few at 35°38′S 165°56′E on 25 Nov, all in 78. Two records only by the same observer relate to the Cape: 5 at 30°20′S 14°20′E on 20 Oct 79 and 3 at 29°30′S 14°40′E on 25 Feb 80.

Audubon's Shearwater *Puffinus lherminieri*

Several small groups sighted off Cabo Mala, Panama on 14 Sep 78 (WW) and a few at 2°18′N 94°28′W on 23 Jul 78 (WW).

In the Persian Gulf, 26°21′N 54°40′E, approaching the Strait of Hormuz, PWGC saw a group of at least 35 and 4 others on 9 Dec 77, which were presumably of the race *P.l.persicus*. Notes on the Census Sheet detail the birds as "small size, black above and white below. Fast flaps and occasional glide".

Many of our records of gadfly-petrels come from WW on voyages between Panama and Australia/New Zealand during 78.

Great-winged Petrel *Pterodroma macroptera*

Many reportings from the Cape Route in most months of the year: usually observers report few or several during a watch. This petrel is less inclined to stray northward in the Benguela Current than some species and is generally first encountered at about latitude 28°S. Exceptionally WW saw several at 22°36′S 7°23′E on 18 Oct 79 when bound from Dunkirk to Richards Bay. In the Agulhas Current WW saw several in the coastal waters off Durban on 28 Oct 79 (sea temperature 20°-23°C), and small groups between East London and Durban, about 15 miles offshore on 3 Mar 80 (sea temperature up to 25°C). In the southwest Pacific Ocean several observers saw this petrel, again in small numbers, but not until about 30°S. Westbound to Brisbane, WW saw them almost daily from 28°S 167°W on 3 Aug to the Australian coast on 14 Aug 78.

White-headed Petrel *Pterodroma lessoni*

This large distinctive gadfly-petrel was reported by WW who saw a few at 30°S 154°E on 14 Aug 78, and similar numbers the following day off Sydney. Leaving Australian waters WW saw these birds in the Bass Strait, southwest and central Tasman Sea, 26-28 Aug and an isolated bird at 33°52′S 176°28′E on 30 Aug 78.

Atlantic Petrel *Pterodroma incerta*

This distinctive petrel, which nests only on Tristan da Cunha, was reported in the South Atlantic by several observers. PWGC saw 2 at 27°42′S 6°36′E on 16 May 77 and 1 at 20°41′S 5°10′W on 15 Aug 78. JJWa saw 10 flying with terns off C. Agulhas on 12 Dec 78 and 2 at 16°23′S 3°27′E on 11 Nov 79.

Tahiti/Phoenix Petrel *Pterodroma rostrata/alba*

WW was unable to separate these two species but saw several each day of one form or the other from 11°34′S 134°50′W on 27 Jul to 24°20′S 160°44′W on 2 Aug 78.

Peale's Petrel *Pterodroma inexpectata*

Census data from SJH on two separate transects of the North Pacific gave the following details:

(i) 3 per hr 49°N 170°E 12 Aug 78.
(ii) 4-20 per hr 53°N 153°W 15 May 79.

Herald Petrel *Pterodroma heraldica*

WW positively identified 2 at 4°33′S 114°31′W on 27 Jul 78 and 2 at 27°45′S 144°28′W (off Rapa Is) on 9 Sep 78. Of at least 100 birds off the Pitcairn Islands, about 90% were dark phase - 6 Sep 78.

Kermadec Petrel *Pterodroma neglecta*

Dark, intermediate and light phase birds were noted by WW in several small groups at 33°S 175°W on 31 Aug 78. They paid no attention to the ship. The white (under) primary shafts were seen on birds at close range, while the light phase were noted as unmistakable. Further east WW also saw this species at 11°S 107°W on 9 Sep 78 and at 4°N 90°W on 20 Oct 78.

Soft-plumaged Petrel *Pterodroma mollis*

Variously reported by PWGC from May to Sep on the Cape route: 89 at 34°11′S 29°21′E on 20 May 77 and 31 at 32°56′S 16°26′E on 21 Sep 78. Two interesting records of 2 birds at 19°09′S 8°00′W on 3 Jul and 2 at 21°10′S 5°08′W on 25 Sep come from an area south of St. Helena in which we receive little data. PWGC saw these birds from a VLCC on voyage from Freeport to the Persian Gulf.

White-necked Petrel *Pterodroma externa*

Gadfly-petrels sighted further west, but still in the tropics, were positively identified by WW as this species. Single birds at 1°37′N 96°30′W and 0°55′S 103°33′W on 21 and 22 Oct, a few at 7°41′S 122°56′W on 25 Oct and at least 50 passing southwards at 11°44′S 128°04′W on 26 Oct 78.

Cook's Petrel *Pterodroma cooki*

WW saw several in the Tasman Sea he thought were this species at 37°S 158°E on 24 Nov and at least 30 at 36°S 167°E on 25 Nov 78. In the supporting notes this species was distinguished from *P. leucoptera* by the pale crown and from *P. hypoleuca nigripennis* by different under-wing marks.

Jouanin's Petrel *Bulweria fallax*

A single record from 17°30′N 57°36′E on 17 Dec 77 (PWGC).

Bulwer's Petrel *Bulweria bulwerii*

A few expected sightings from the tropical and sub-tropical east Atlantic Ocean of which a record of several birds at 37°22′N 22°15′W on 17 Jun 79 (WW) is representative. A single bird at 4°43′N 13°53′W on 21 Dec 78 (JWWa) was probably also this species.

STORM-PETRELS *HYDROBATIDAE*

Wilson's Storm-petrel *Oceanites oceanicus*

Storm-petrels are one of the most difficult birds to identify at sea. This is borne out by the frequency with which uncertain sightings are recorded. Those sightings reported as positive tend to confirm current knowledge of this species' distribution. However, in the central tropical South Atlantic PWGC reports birds in an area from which we receive little data: at least 10 following astern at 7°38′S 24°40′W on 29 Sep 78 and a similar number the next day at 4°55′S 28°20′W, later increasing to 23 in 4°08′S 29°41′W. Sightings of small groups by WW when approaching Sao Miguel, Azores on 25 May 79 probably refer to migrating birds recently arrived (post-breeding birds vacate Antarctic waters in mid Mar-Apr and some are present off NW Africa by late Apr).

White-faced Storm-petrel *Pelagodroma marina*

WW saw 2 in the South Pacific at 24°20′S 160°44′W on 2 Aug 78 and a few at 35°37′S 178°53′E on 4 Nov 78. He also reported similar numbers on a coastal passage from Poor Knights Island to Three Kings Island and in the central and northeastern Tasman Sea, 9-10 Nov 78. No sightings were reported from the eastern Atlantic.

White-bellied Storm-petrel *Fregetta grallaria*

WW saw several at 37°09′S 157°54′E on 24 Nov 78. PWGC saw 1 possible at 11°28′S 19°05′W on 6 Jul 78 and ASY 1 at 18°20′S 36°54′W on 31 Aug 79. In the South Pacific NAA reports a single bird at 23°31′S 152°30′E on 17 Jun 79, close to islands where they breed. Further west BW saw a total of 3 near Lord Howe Island on 18 Feb 80 and supported his identifications with useful descriptive notes.

Black-bellied Storm-petrel *Fregetta tropica*

JWWa noted the dark centre line on 1 individual flying close to his ship in 35°15′S 15°20′E on 2 Nov 79.

White-throated Storm-petrel *Nesofregetta albigularis*

2 at 16°24′S 133°23′W on 27 Oct 78 (WW). A few at 00°15′N 101°00′W on 24 Jul 79 seems a long way east for this species, and similar numbers at 4°33′S 114°31′W on 26 Jul 79 (WW).

British Storm-petrel *Hydrobates pelagicus*

WW reports 3 following his ship for an hour at 34°50'S 21°17'E (Agulhas Bank) on 27 Feb 80.

Galapagos Storm-petrel *Oceanodroma tethys*

WW comments that in flight this species appears like *H. pelagicus* but shows a large white rump patch. Sightings are generally restricted to the vicinity of the Galapagos Islands, e.g. a few each day between 3°S 93°W and 5°N 82°W, 10-12 Dec 78, but also a few off C. Mala, Panama on 21 Jul 78 (WW).

Madeiran Storm-petrel *Oceanodroma castro*

A long series of observations were submitted by several observers. The white on the sides of the under-tail coverts as an identification feature is mentioned by WW, and at 29°22'S 13°47'E on 1 Nov 79 he saw 2 birds following his ship for a short period.

Leach's Storm-petrel *Oceanodroma leucorhoa*

For some reason this seabird seems to find its way on board ships more frequently than most. This provides a source of good distribution data. PWGC submitted Bird Examined in the Hand (BEH) forms for an adult found on board dying at 7°S 5°W on 2 Sep 76 and an apparently healthy bird found on the bridge wing of his VLCC in 15°00'S 00°47'E on 24 Apr 79. In the temperate N. Atlantic MGF had 1 on board in 41°N 47°W and 2 in 44°N 40°W on 10, 11 Jul 80. These were thought to have landed at night during heavy thunderstorms. SJH in the North Pacific saw 250+ in an hour in 43°42'N 147°58'E on 25 May 79. WW saw 3 birds in 00°56'N 10°19'W on 18 Feb 80, closely following a small school of Southern Pilot Whales *Globicephala macrorhyncha*. They were not seen to touch the whales but seemed to be feeding close beside or above them.

Markham's Storm-petrel *Oceanodroma markhami*

Several small groups on the Equator at 101°W on 24 Jul 78 and several at 1°47'S 89°51'W on 12 Nov 78 (WW).

Matsudaira's Storm-petrel *Oceanodroma matsudairae*

On passage from Aden to Japan SJH saw 22-25 following closely astern in 26°N 128°E on 27 Mar 79. His sighting is supported with field notes which refer to "a large storm-petrel, overall sooty brown above and below. Upper wing coverts appearing paler and at times possible to see primary shafts flashing whitish—giving appearance of a white patch". PGM reports 2 at 30°N 133°E on 24 Apr 79.

Fork-tailed Storm-petrel *Oceanodroma furcata*

SJH met with this distinctive storm-petrel on several North Pacific crossings and has supplied census data. The largest concentrations were encountered between longitudes 150°W and

160°E (south of the Aleutian Islands where the birds breed). Some typical records are:

Date	*Position*	*Birds*	*Weather*
13 Aug 78	48°N 161°E	132 in 2hr	Fine and clear
24 Apr 79	50°N 161°W	13 in 3hr	Overcast, misty
15 May 79	53°N 153°W	260+ in 4hr	Overcast, misty
17 May 79	51°N 170°W	650 in 4hr	Fine, clear
20 May 79	50°N 180°W	40+ in 4½hr	Hove to in storm

Black Storm-petrel *Loomelia melania*

SJH saw 7 in the wake of his ship at 11°40′N 90°42′W on 4 Jul 78.

DIVING-PETRELS *PELECANOIDIDAE*

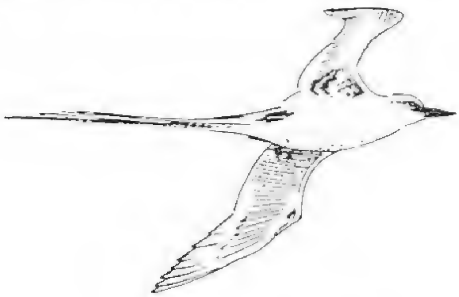
Common Diving-petrel *Pelecanoides urinatrix*

TH saw 100s from H.M.S. *Falmouth* when rounding the north tip of North Island, New Zealand, 3-4 miles offshore on 10 Aug 79.

TROPIC-BIRDS *PHAETHONTIDAE*

Red-billed Tropic-bird *Phaethon aetherus*

Reported in ones and twos only. Two records outside of the tropics: one northeast of the Bahamas at 26°30′N 74°46′W on 25 Jun 79 (WW) and one at 24°44′S 8°26′E on 2 Jan 80 (WW). PWGC reported and described a single adult bird at 9°45′S 45°45′E on 2 Dec 77. This Indian Ocean record comes from an area north of Madagascar that is well west of this species' usual range.



Red-tailed Tropic-bird *Phaethon rubricauda*

In the Mozambique Channel PWGC saw 4 (total) at 22°S 40°E on 30 Nov 77. Crossing the Pacific WW saw a few or several daily between 5°S 116°W and 22°S 146°W, 24-29 Oct 78. He also saw a single bird surprisingly far east at 10°23′S 103°24′W on 8 Dec 78. MGF en route from North Cape, New Zealand, to Shanghai on 3 Dec 79 saw a tropic-bird pass high over the ship 75 miles SE of Norfolk Island (30°S) which he records as this species (air/sea temperature 23°C).

Yellow-billed/White-tailed Tropic-bird *Phaethon lepturus*

Few observers detail how they distinguish *P. lepturus* and *P. aetherus* and one can do no better than reiterate Captain G. S.

Tuck's comment in his Seabird Field Guide. "Viewed against a background of blue tropic sky it is no easy task to distinguish between the Red-billed and White-tailed species". Crossing the Atlantic at 23 knots RWJ records 2 *P. lepturus* at 38°22′N 66°51′W on 4 Aug 78. While in the southern hemisphere I came close to ASY's ship at 33°25′S 31°18′E on 20 Feb 79. CR described and sketched a tropic-bird near Reunion Island on 16 Feb 80 which was most probably this species. PWGC submits a BEH form for a bird at 5°26′S 47°42′E on 17 May 80. It was extremely heavily infested with ecto-parasites. A selection of these were collected and Miss B. Brewster of the British Museum (Nat. Hist.) commented "The specimens are *Laminalloptes phaetontis (Fabricius),* a species of mite frequently found infesting the feathers of *P. lepturus*. It is thought that feather mites are predominantly scavengers, feeding on fragments of feather and desquamated cells from the skin. It has also been noted that the gut has a high fat content suggesting that the oil covering of the feathers, derived from the uropygial (tail feather) gland, forms an important part in the diet of these mites".

GANNETS AND BOOBIES *SULIDAE*

Northern Gannet *Sula bassana*

Anyone really interested in the Gannet should read Bryan Nelson's book "The Gannet" which provides a most readable account, based mainly on the author's own researches, of this bird's breeding biology, ecology and distribution. Mr Nelson also includes a useful chapter on the eight related gannets and boobies with good black and white drawings which may assist observers in differentiating between the difficult species.

Leaving aside sundry English Channel sightings the majority refer to birds in their wintering grounds during the months October to February and serve to substantiate the existing knowledge of the Gannets' whereabouts away from the breeding colonies. Passages to the Cape frequently, but not always, produce some sightings, e.g. PWGC saw 1 immature at 22°20′N 17°33′W on 26 Oct, 12 adults at 48°02′N 6°50′W on 31 Oct, 130 (adults and some immatures) at 47°45′N 6°32′W on 9 Nov and 1 immature at 21°00′N 18°00′W on 14 Nov 77. JWWa had 15 (only 2 adults) flying off the bow for three hours in 20°17′N 17°43′W on 24 Dec 78. WW recorded many (of which 20% adults) at 23°N 17°W on 13 Oct 79 (sea temperature 18°-20°C) and small groups of immatures 50 miles off Cap Blanc 20°N 18°W on 12 Jan and several immatures in the same position one month later on 14 Feb 80. Small groups in the central Bay of Biscay were seen during Oct, Nov, Dec 79, Feb and Mar 80 (WW). In the western Atlantic KS saw 5 adults at 45°02′N 56°14′W on 3 May 79.

Cape Gannet *Sula capensis*

Commonly reported in the ports and offshore waters of South Africa. CR saw varying numbers at East London, Richards Bay and Port Elizabeth during March 1980, and 300-400 feeding amongst a school of 200 dolphins 5 miles south of Quoin Point on 3 Mar 80.

Blue-footed Booby *Sula nebouxii*

Approximately 20, in small groups, recorded at 11°40′N 90°42′W, about 130 miles from the coast of Central America, on 4 Jul 78 (SJH).

Blue-faced Booby *Sula dactylatra*

PWGC in the tropical Atlantic identified an immature booby as *S. dactylatra* on 7 Jul 78. It stayed with his ship for 10 minutes in position 8°48′S 23°21′W, about 500 miles from breeding colonies on Fernando Noronha and Ascension Island. Several observers reported this species off the coast of Oman between Kuria Muria Islands and Ras al Hadd. PWGC saw 22 adults at 18°00′N 58°14′E on 7 Dec 77 and 26 at 16°55′N 57°51′E on 9 Sep 78. PGM saw 20 at 22°N 61°E on 25 Mar 79. In the Pacific most sightings are within 250 miles of the Galapagos Islands e.g. WW saw several adults at 3°18′S 92°38′N on 10 Dec 78 and small groups (adults and immatures) at 1°47′S 89°51′W on 12 Sep 78.

Red-footed Booby *Sula sula*

Widespread sightings reported from the tropical oceans but seldom in great numbers. DMS remarked on the absence of *S. sula* during March and April 79 whilst standing by the Tembungo Oil Terminal, 6°37′N 115°47′E, 34 miles off the Sabah coast. PWGC had an immature on board at the Equator 49°E on 21 Dec 77, which travelled with the ship for two days and nights perched on the mast and occasionally made forays to catch fish. CR described an immature booby 200 miles north of the Seychelles on 11 Mar 80 which was undoubtedly of this species.

Brown Booby *Sula leucogaster*

In the southern Red Sea MGF saw 10 adults at 14°12′N 42°48′E on 2 Feb 80 and next day 4 adults 140 miles south of Jeddah. RRW saw 60 adults at 15°18′N 41°54′E on 11 May 79. Elsewhere sightings were restricted to the tropical oceans and yielded little worthy of special comment.

FRIGATE-BIRDS *FREGATIDAE*

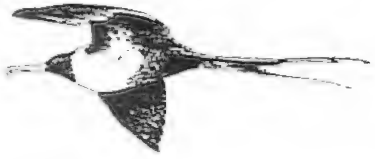
Magnificent Frigate-bird *Fregata magnificens*

Several observers recorded this species around the West Indies, Caribbean Sea and the Gulf of Mexico.

Greater Frigate-bird *Fregata minor*

In the Pacific WW saw 2,50 miles off Pitcairn on 5 Sep 78, 1 at

11°44′S 128°04′W on 26 Oct 78 and 1 the following day at 16°24′S 133°23′W.



Lesser Frigate-bird *Fregata ariel*

NAA saw several near the southern Marquesas Islands on 8 Jul 79 and supported his identification with sketches and descriptive notes. Sightings in the Indian Ocean include 3 at 11°45′S 42°20′E on 23 Dec 77 and 8 at 8°20′S 46°05′E on 27 Aug 78 (PWGC). At the Tembungo offshore Oil Terminal, 6°37′N 115°47′E, DMS frequently encountered small parties of frigate-birds throughout May and June 1979. Most were females or immatures and usually seen at long range making specific identification difficult. A handful of male *F. minor* and *F. ariel* were the only positive identifications.

PHALAROPES *PHALAROPODIDAE*

Grey Phalarope *Phalaropus fulicarius* and
Red-necked Phalarope *Lobipes lobatus*

These two birds are particularly difficult to separate reliably when sighted at sea as they are then usually in winter plumage. Those seen off the west coast of North Africa tend to be called *P. fulicarius*. This species also winters at sea off the coast of South Africa. PWGC identified 2 at 23°53′N 16°56′W on 26 Oct 77 and JWWa 1 at 23°22′N 17°20′W on 19 Nov 79. 23 possibles were seen at 23°00′N 17°24′W on 8 Oct 77 (PWGC) and 30 possibles at 40°16′N 10°50′W on 22 Nov 79 (JWWa). The migration routes and the wintering grounds of *L. lobatus* in the Atlantic are little known but it is well known to winter in the Arabian Sea: DMS identified 1 positive at 25°06′N 54°25′E on 17 Oct 78. Off the coast of Sabah the same observer saw a group of 80 unidentified phalaropes on 22 Mar 79.

SKUAS *STERCORARIIDAE*

Great Skua *Catharacta skua*

The Great Skua is probably the seabird most frequently recorded by members, perhaps because of its large size, distinctive plumage and flight.

Whilst at sea it is uncommon to see more than a few together at any time the area between the Bay of Biscay and the west coast of Africa (to latitude 10°N) is clearly a preferred wintering area (November-March). Occasional sightings were reported from the central Atlantic and Caribbean. JWWa saw 1 at 41°N 35°W on 3 Dec 79. PWGC saw 1 at 8°N 50°W on 4 May 77. RWJ saw 1 at 44°N 49°W on 27 Jul 78.

Many skuas have been collected around the southern continents but none of the northern race *C.s.skua*. There is thus no evidence that the Great Skua is a transequatorial migrant. However the smaller South Polar Skua *C. maccormicki* is now known to reach the North Atlantic as well as the North Pacific (Devillers 1977). In this paper Devillers recognises three species. These are the Great Skua *C. skua*, with races *skua* in the North Atlantic, *antarctica* in the Falkland Islands, *hamiltoni* in Tristan da Cunha and Gough Island and *lonnbergi* further east; the Chilean Skua *C. chilensis*, smaller with reddish underparts in most adults in southern South America and the South Polar Skua *C. maccormicki* in Antarctica. The latter species is polymorphic—continental birds have pale heads and bodies, but many from the Antarctic Peninsula are all dark. The pale birds should be recognisable at sea.

The coastal waters of southern Africa have produced sightings of large skuas at most seasons of the year, the southern summer ones presumably referring to immatures: for example at least 20 twenty miles off C. Agulhas on 12 Dec 78 (JWWa) and numerous birds at 33½°S 17½°E on 22 Feb 79 (ASY). Sightings are occasionally reported from the Indian Ocean. PWGC saw 1 at 22°S 40°E on 30 Nov 77, NAA saw 4 harassing Sooty Terns at 12°S 74°E on 24 May 79 and JWWa saw 4 at 32°S 115°E on 17 Jul 79. In the South Atlantic ASY saw birds as follows: 1 at Montevideo, 3 off Buenos Aires, Jul 79, 1 at 31°S 50°W on 24 Aug 79 and 4 at Paranagua Harbour the next day. Approaching C. Horn from the west JWWa saw 2 at 52°S 106°W on 1 Feb 79.

Pomarine Skua *Stercorarius pomarinus*

In the temperate and tropical Atlantic many winter sightings were reported north of the Equator, with a marked concentration off the coast of Africa, and in particular the area off Cap Blanc. No sightings were reported south of the Equator. Records of note include 30 in the vicinity of extensive tide rips, with shearwaters settling and feeding, occasionally being chased by the skuas, at 10°00′N 16°40′W on 22 Dec 78 (JWWa), many at 23°01′N 17°15′W on 13 Nov 79 (WW), and 6 at 22°25′N 17°30′W on 19 Nov 79 (JWWa).

WW had small groups following his ship M.V. *Fuerte Ventura*, noon position 9°50′N 16°53′W (on the continental shelf edge) northbound for Dakar, on 10 Jan 80. Some skuas appeared in front of the vessel's bow and were seen catching flying-fish put up by the bow wave. The fish were caught in flight. White-tailed Tropic-birds are known to attack flying-fish which are in the air (Jenkins 1980) and boobies which also fish off the bow usually take flying-fish underwater. It would be interesting to know if other observers have witnessed skuas, or other seabirds, similarly preying on flying-fish.

In the Caribbean WW saw small groups at La Guaira, the Yucatan Channel/Gulf of Mexico and 20°33′N 93°20′W in early January 1979. SJH crossing the North Pacific saw 17 in 1½ hours at 48°N 170°E on 12 Aug, 41 in 2 hours at 47°N 160°E on 13 Aug 78, 34 in 4 hours at 51°N 170°W on 17 May and 28 in 3 hours at 48°N 172°E on 22 May 79. KS saw 5 at 48°N 161°E on 26 Sep 79. In the South Pacific WW saw small groups on a coastal passage round C. Byron on 14 Nov, at Moreton Bay on 15/16 Nov and a few at 38°N 150°E on 19 Nov 78.

DMS standing by the Tembungo Oil Terminal in 6°37′N 115°47′E commented "Skuas are not common in this area. None observed during May (1979). On 13 June 3 birds flying NW were possible *S. pomarinus*. One positive on 18 June"

Arctic Skua *Stercorarius parasiticus*

Less frequently reported than the previous two skuas. JWWa saw about 100 possibles in several large groups over a 30-minute period at 35°S 13°E on 2 Nov 79. PWGC saw 5 when at anchor off Durban on 27 Dec 77, and WW saw small groups at Richards Bay on 25/26 Dec 79 and 29 Feb 80, and several off Port Elizabeth on 29 Dec 79. In the South Pacific WW saw 2 at 34°S 174°W on 2 Nov, 2 at 37°S 158°E on 24 Nov and small groups at 34°S 179°W on 27 Nov 78.

Long-tailed Skua *Stercorarius longicaudus*

SJH saw adults in the Pacific, presumably returning to Arctic breeding grounds, as follows: 2 at 53°N 153°W on 15 May, 4 at 51°N 170°W on 17 May and 9 at 48°N 172°E on 22 May 79.

GULLS *LARIDAE*

Red Sea Black-headed Gull *Larus leucophthalmus*

MGF recorded 10-15 adults and immatures at Jeddah on 3 Feb 80.

Herring Gull *Larus argentatus*

In the Persian Gulf PWGC saw 1 at 26°26′N 56°26′E on 7 Sep 78. DMS described this bird as the common gull of the area at the Zaqqum Oilfield, both the pink legged and yellow legged variety being present, 10-17 Oct 78. Winter North Atlantic crossings sometimes produce stragglers but these are less expected in summer; WW saw 2 adults at 47°10′N 27°55′W on 5 May 79.

Lesser Black-backed Gull *Larus fuscus*

PWGC saw 1 at the Forcados SBM (5°10′N 5°10′E) on 15 Oct 77 and 1 adult at 17°36′N 18°02′W on 25 Oct 77. In the Indian Ocean the same observer recorded 2 at 26°21′N 54°40′E on 9 Dec, 1 at 22°11′N 60°02′E on 16 Dec, 14 at 26°25′N 56°17′E on 19 Dec 77 and 1 at 26°26′N 56°26′E on 7 Sep 78. WW saw a few adults at 25°09′N 16°31′W on 13 Feb and a few at 28°35′N 15°54′W (off Tenerife) on 14 Feb 80.

Grey-headed Gull *Larus cirrocephalus*

This gull is well established on the African continent but it also crops up enigmatically in a restricted area of the east coast of temperate South America and has a foothold on the Peruvian coast. ASY saw small flocks at Buenos Aires in July 79, and WW recorded small groups at Richards Bay Harbour in Oct and Dec 79 and Mar 80.

Black-headed Gull *Larus ridibundus*

Wintering birds were seen by PWGC in the Persian Gulf and on the Cape-PG tanker route, 56 at 26°28′N 56°32′E on 9 Dec 77, 7, including 2 immatures, at Kharg Island on 12 Dec 77. 10 at 26°07′N 55°43′E on 15 Dec and a single straggler at 2°36′N 50°00′E on 20 Dec 77.

Kittiwake *Rissa tridactyla*

On the Cape route JWWa saw 1 immature at 22°25′N 17°30′W on 19 Nov 79. On a northward passage WW first encountered several small groups at 36°22′N 12°33′W on 16 Nov 79 and a few adults at 28°35′N 15°54′W on 14 Jan 80.

Red-legged Kittiwake *Rissa brevirostris*

Small numbers were seen by SJH on a North Pacific crossing from Portland to Pusan. They were first encountered at 51°N 170°W on 17 May 79 when a total of 23 were counted with 240 *R. tridactyla* in a four-hour watch. It was then seen almost daily to 48°N 173°E on 22 May when 7 were counted in 3 hours with 300 *R. tridactyla*. However on an April 79 great circle crossing from Japan to Portland SJH did not record *R. brevirostris*.

Swallow-tailed Gull *Creagrus furcatus*

When crossing the South Pacific several observers passed close to the Galapagos Islands. The Swallow-tailed Gull nests here throughout the year, peak breeding occurring in each colony every nine or ten months (Harris 1969). Our only record is from WW who saw a single bird 20 miles south of Hood Island, which incidentally has the islands' largest colonies. These gulls feed nocturnally which may help to explain why they are not reported more often.

Sabine's Gull *Xema sabini*

WW saw small groups and single birds when passing 25 miles off Cape Town, noon position 33°51′S 17°46′E, on 22 Dec. 79.

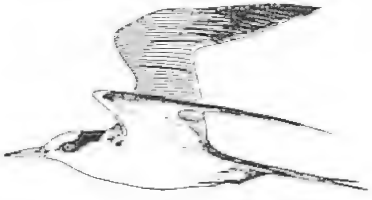
TERNS *STERNIDAE*

Black Tern *Chlidonias niger*

Small groups at Cristobal anchorage, 17/18 Oct 78, small groups several miles from this port, 15 Nov 78 and large groups in the Gulf of Panama, 13 Dec 78 were all reported by WW.

Gull-billed Tern *Gelochelidon nilotica*

PWGC saw 1 at 23°46′N 59°03′E on 2 Sep 78 which arrived from the south and landed on board.



Arctic Tern *Sterna paradisea*

WW noted small groups going north at 48°N 19°W on 4 May 79.

Aleutian Tern *Sterna aleutica*

SJH saw an adult at 47°29′N 127°00′W on 12 May 79 which he described as follows. "Mantle and wings dark grey. Black cap with white forehead, black eye strips from base of bill through eye to the nape. Bill blackish. Tail deeply forked and white. Breast and underparts light grey. Legs appeared blackish. Close alongside for 2 minutes before departing."

Sooty Tern *Sterna fuscata*

An immature landed on the deck of the S.S. *Lotorium* and was found in 2°46′S 9°14′W on 26 Feb 76. PWGC submitted details of this bird on the BEH form and for another at 0°06′S 48°49′E on 21 Dec 77. Widespread reports of this tern in the Tropics were otherwise fairly predictable.

Little Tern *Sterna albifrons*

Several small groups, some sitting on driftwood, in 8°19′N 16°07′W on 10 Nov 79 (WW).

Crested Tern *Thalasseus bergii*

DMS comments, "The only seabird seen every day at the Tembungo Oil Platform (6°37′N 115°47′E) during May and June 1979, usually in parties of less than 20 birds fishing".

Sandwich Tern *Thalasseus sandvicensis*

PWGC saw two terns, 1 adult and 1 immature, which he thought were probably this species in 16°N 58°W on 7 Oct 78. They were flying with the ship (steaming at 11 knots) and fishing alongside.

White Tern *Gygis alba*

Sightings near the Southern Marquesas Islands (NAA) and off the Cocos Island, 4°35′N 87°49′W (WW) are predictable, the following far from land are perhaps less expected. NAA saw 6 at 5°00′S 121°46′W on 11 Jul 79. WW saw a few at 6°51′S 121°15′W on 27 Jul and 1 at 17°09′S 114°27′W on 6 Dec 78.

CRESTED AUKLET *Aethia cristatella*
May 1979
Photo: S. J. Hingston

AUKS *ALCIDAE*

Crested Auklet *Aethia cristatella*

On eastbound and westbound Pacific crossings SJH saw this species in April and May 79 respectively. An unusually large concentration of these auks was encountered in 44°N 160°E on 20 Apr. A total of about 500 birds, in groups of 20-30 were counted in a two-hour period. 2 birds crash-landed on deck in strong winds providing an opportunity to complete a BEH form. Other birds landed on deck in storm force winds and one was captured in 50°47′N 179°25′W on 19 May 79, see photo. The following day with the vessel still hove to in a storm SJH saw 22 in 4 hours at 50°N 179°W and 13 in 1 hour in 44°N 148°E on 25 May.

Horned Puffin *Fratercula corniculata*

SJH saw a few birds between 51°N 179°W on 19 May and 44°N 148°E on 25 May 79. On the latter date 18, always in pairs on the sea, were counted in a one-hour period.

Tufted Puffin *Lunda cirrhata*

SJH saw this auk on three separate Pacific crossings in Aug 78, Apr 79 and May 79. Systematic counts showed numbers from 2 to 5 birds per hour between 49°N 135°W and 44°N 148°E, 13-25

May 79. Exceptionally 337 were counted in 4 hours (84/hr) at 51°N 170°W on 17 May. KS saw 6 at 54°N 176°W on 28 Sep and 15 at 53°N 162°W on 24 Oct. 79.

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GREY GULL *Larus modestus*
Adult in summer plumage, west coast of South America
Photo: S. E. Chapman

IDENTIFICATION OF ROYAL AND WANDERING ALBATROSSES

By Peter Harrison

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Introduction

Identification of the large Royal and Wandering Albatrosses *Diomedea epomophora* and *D. exulans* is normally considered problematic. Even in such recent publications as Birds of the Antarctic and Subantarctic (Watson 1975) and Southern Albatrosses and Petrels (Harper & Kinsky 1978) and A fieldguide to the seabirds of Britain and the world (Tuck & Heinzel 1978), there is very little information available to enable a field-worker to distinguish between the two species. Perhaps for this reason the two subspecies of the Royal Albatross *D. e. epomophora* and *D. e. sanfordi* have rarely been recorded away from the seas adjacent to New Zealand, the only known breeding area (Tuck & Heinzel 1978).

Although Harper & Kinsky (1978) state that both subspecies of the Royal Albatross are circumpolar in distribution this is a somewhat premature statement. It has certainly been recorded wintering off both the Atlantic and Pacific coasts of southern South America (Watson 1975) but its route to and from its breeding islands remains undetermined. It is likely that birds depart eastwards from New Zealand and, following the westward drift, arrive off the South American littoral. What is of interest to the South African seabirdwatcher is the return route from the seas off southern South America. Does it follow the westerly drift across the higher latitudes of the southern Atlantic and Indian oceans to complete a circumpolar route back to New Zealand waters or does it travel back across the Pacific Ocean against the prevailing westerlies? The probability of its following the westerly drift from South America and thus occurring at sea off the South African coast seems a more plausible explanation but more information is urgently required.

There are only two records of possible sightings of Royal Albatrosses off the African continent : an old record, requiring confirmation, off the Atlantic coast of Morocco (Etchécopar & Hüe 1964), and on 17 July 1970 L.E. Lofgren of the Royal Navy Birdwatching Society saw a great albatross with entirely dark upperwings but an entirely white body and tail, (diagnostic of *D. e. sanfordi*) at 34° 42'S, 16° 46'E approximately 100 miles off the South African coast (Bourne & Dixon 1975).

My field experience with albatrosses began in the southern Atlantic Ocean six years ago. The following descriptive notes are the result of carefully noting down the plumage details of every white-backed albatross observed since that first encounter. In later years my seabird research project has taken me to the Prince Edward islands and voyages across the Indian Ocean and Tasman Sea. In 1977, whilst crossing the Indian Ocean, I devoted most of my time to working out the plumage stages of the Wandering Albatross. My experience with the two species was broadened considerably when I visited New Zealand. Thanks to the assistance of Mr G. West, the skipper of the crayfishing

vessel *Tradewind* I spent several months observing both the Wandering Albatross and both subspecies of the Royal Albatross at sea off Stewart Island. It was during this period that the plumage stages of the two forms of Royal Albatross were committed to paper.

Identification criteria

Some authorities place great importance on bill colouration and even colour of the eyelids. These details may be easily observed from a museum skin, but at sea, standing on an unstable deck, they are of little practical importance. Field identification between the two species can only be based on a sound knowledge of the seven primary stages of the Wandering Albatross plumage patterns. Once these have been committed to memory distinguishing between the two species is reasonably straightforward. Although the successive plumage stages of the Wandering Albatross are shown in Gibson (1967), there is no published information comparing the plumage sequences of the two species. It must be remembered that different populations of the Wandering Albatross have different endpoints in the plumage sequence; some individuals do not progress beyond stage 4 (J. Warham pers. comm.). For simplicity it will suit our purpose better if we forget artistic renderings for the time being and compare the seven primary stages of the Wandering Albatross' plumage against those of the Royal Albatross in a simple flat-tone representation (see Plate 1).

Wandering Albatross

Stage 1 Chocolate brown upperparts.

Stage 2 Back whitens, crown and tail remain dark.

Stage 3 Back continues to whiten, brown feathers on crown reduced, base of tail feathers whiten, white elbow patches appear.

Stage 4 White wedges appear in the centre of the wing.

Stage 5 The wedges and elbow patches join to show a white central portion to the wing. Tail continues to whiten. Females still retain mottling on the crown and breast.

Stage 6 Central white area increases and for the first time in the plumage pattern the basal part of the wing's leading edge is white. This white however does not extend to the carpal joint.

Stage 7 The white area extends to the carpal joint with only the tips and trailing edge of the wing dark.

Royal Albatross

It is necessary to divide this into the northern subspecies *D. e. sandfordi* and the southern subspecies *D. e. epomophora*.

Diomedea e. sanfordi

Stage 1 All dark wings scalloped at back and wing junction.

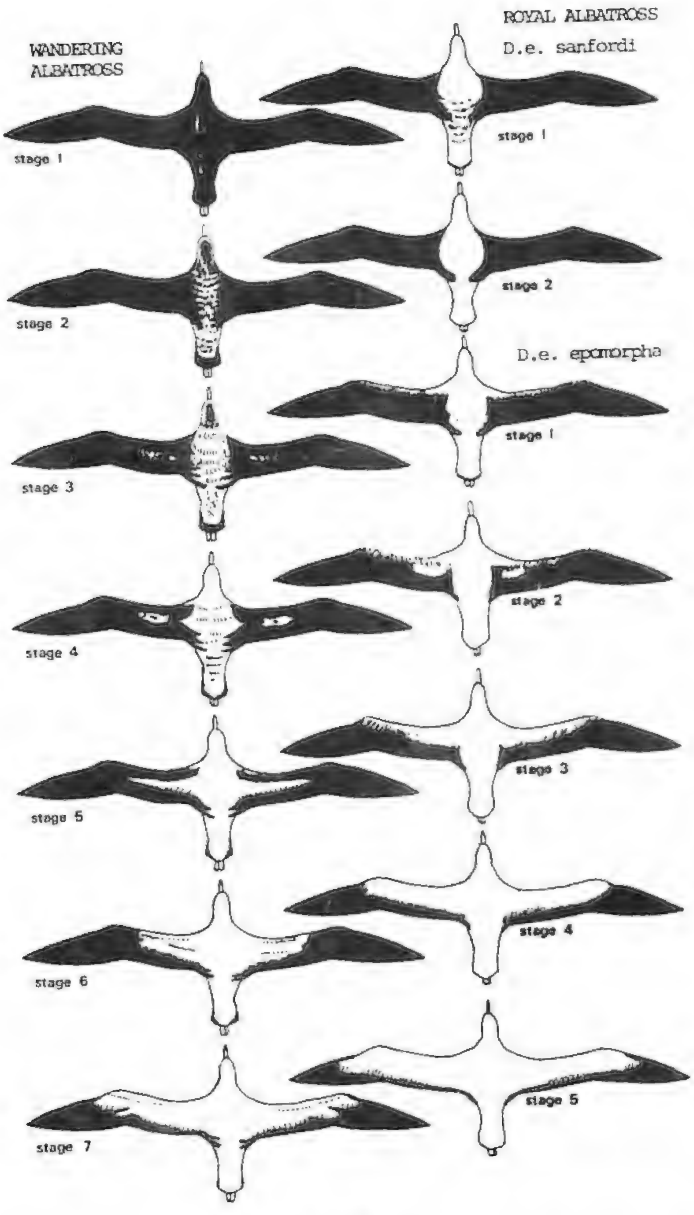


Plate 1

Schematic representation of the upper wing patterns of various plumage stages of the Wandering and Royal Albatrosses

Mottling on the lower back and sometimes on the crown. (A Wandering Albatross with this amount of black on the upperparts would show a pronounced dark tail.)

Stage 2 Crown and back whiten and the wings darken to show solid black upperwings.

Diomedea e. epomophora

Stage 1 Black trailing flight feathers and trailing edge, darkly freckled forewing. Black tips to white tail. (Does not have black sides to the tail.) Mottling on the lower back.

Stage 2 Back whitens. Weak, white elbow patches in the freckled forewing. Tail is now mainly white.

Stage 3 All white tail. Freckling fades on the basal forewing to reveal whitish leading edge.

Stage 4 The area of freckling diminishes as the wing whitens from the leading edge.

Stage 5 Only the primaries and secondaries remain black.

From the foregoing several points emerge as reliable field characteristics which enable an observer to separate the two species in the field. To begin with the progressive whitening of the upperwing of *D. exulans* and *D. e. epomophora* occurs in distinctly different ways. In *D. exulans* the wing whitens from the central white wedge and with age increases to include the leading edge. In *D. e. epomophora* however, the wing whitens from the leading edge backwards to eventually include all but a narrow black trailing edge. Additionally it has a transitional area between the black trailing edge and the white forewing in all but Stage 5 of its plumage stages. The tail is the second field characteristic to watch for. In *D. exulans* it begins all dark and whitens from the base to show conspicuous black sides and tips. Eventually only black tips remain and by Stage 7 many birds will show an all white tail. In *D. e. epomophora* and *D. e. sanfordi* however, the sides of the tail are never black. The tips are often dark grey or brown but these soon whiten to show an all white tail.

The only possible confusion between the two species occurs at Stage 7 of *D. exulans* and Stage 5 of *D. e. epomophora*.

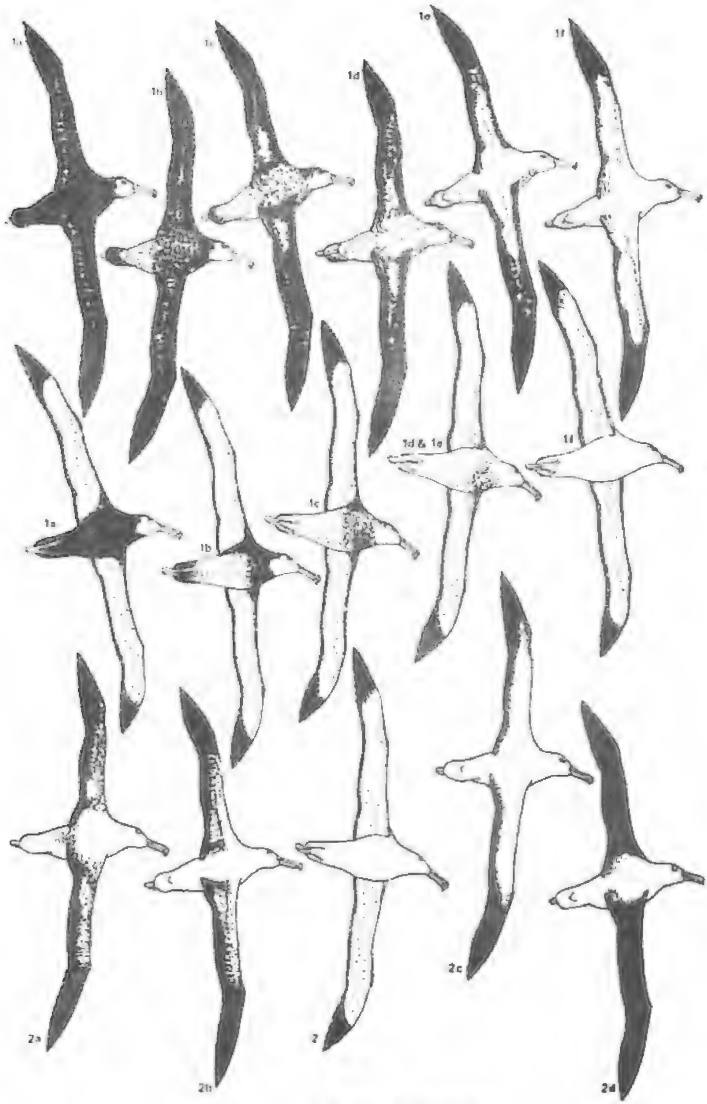
Above in somewhat rudimentary terms we have dealt with the plumage stages of both species. Now we shall expand these descriptions with reference to Plate 2.

Wandering Albatross (*D. exulans*)

1(a) Goney stage

Immature birds are easily told by rich chocolate or rufous brown upperparts contrasting with the white face mask and pink bill. From the underside the mainly dark belly contrasts with the white underwing. The predominantly white underwing with black primary tips is retained throughout all plumages by both the Wandering and Royal albatrosses. Confusion with Southern Giant

1. WANDERING ALBATROSS



2 ROYAL ALBATROSS

Plate 2

Dorsal and ventral views of various plumage stages of the Wandering and Royal Albatrosses in flight

Petrel *Macronectes giganteus* and the Northern Giant Petrel *M. halli* is possible but these species do not have pronounced white face masks or white underwings with dark primary tips.

1(b) Immature birds

White feather edging begins to appear on the back, rump and belly. Although the belly is mainly white the upper breast remains dark. The undertail coverts are normally brown at this stage with white feather tips in some individuals. From above the tail remains a blackish brown while the rump and back begin their gradual transition to the white of adulthood.

1(c) Immature birds

Known to seafarers as the 'leopard stage'. The whole body from above and below is predominantly white with brown feather edging in varying degrees. When viewed from above the wings have lost their brownish hue and now appear blackish. Most individuals show areas of white in the centre of the wing's basal half. The head and body are a dirty white with brown on the back and on the crown, giving a pronounced capped effect. From below the breast band has changed from the heavy markings of the Stage 1(b) bird to a very delicate vermiculation of greys. This is more pronounced in females than in males and in some cases may be retained by females even in fully adult plumage. (Needs further field study.)

1(d) Immature birds

Stages 1(c), 1(d) and 1(e) are the most commonly encountered plumage stages and it is of paramount importance to note that in Wandering Albatrosses the wing whitens from the centre and not from the leading edge (c.f. Royal Albatross). Additionally the tails of Wandering Albatrosses normally show black sides or tips, a feature rarely encountered in the similar Royal Albatross. Thus any albatross with a solid black leading edge to the wing, but with white "elbow patches" and pronounced black in the tail can be safely regarded as a Wandering Albatross.

1(e) Adult females and immature males

As the bird matures the black in the tail is reduced, as is the grey vermiculation on the breast. Nevertheless the black in the tail can be seen at ranges of up to half a mile and is still a good field characteristic. A more reliable method at any range, is the distribution pattern of black and white on the upper wing. The white elbow patches which first appear in Stage 1(c) birds join with the white of the back to form a long white wedge into the dark upperwing. The leading edge of the basal half is still dark but some birds lack this or it is somewhat reduced. This solid black area along the front of the wing however, always extends beyond the carpal joint (c.f. Royal Albatross Stage 2(b)).

1(f) Adult males

With age both Wandering and Royal albatrosses become progressively whiter. This compounds the problem of identification. Between the stages of 1(a) to 1(e) I would never use bill colouration (c.f. Royal Albatross) as the basis of field identification because it is inoperative at anything but very close range. But with the continued reduction of black in the tail, and a mainly white upper wing there is simply nothing else

but the bill to rely on. It is in this last stage of plumage that caution must be exercised in field identification of the two species. There is however, another point to watch for, but which will require further field work to test its reliability. Whilst carrying out my research in New Zealand waters I have noticed that both subspecies of Royal Albatross often fly with their feet tucked into their feathers and not protruding beyond the tail in flight. This gives them a short-ended appearance. Unfortunately this is not a 'constant' field characteristic, because they often use their feet as additional rudders; this is particularly so when they are 'grazing' at low speed behind trawlers. In normal flight however, I have recorded 75% of all Royal Albatross' flying with the feet withdrawn from view. In the five years that I have been in the southern hemisphere I have never seen a Wandering Albatross flying with its feet retracted. If it can be proved by observation that Wandering Albatrosses carry the feet projecting beyond the tail at all times then any predominantly white-winged albatross with retracted feet can be safely assumed as a Royal Albatross. For this reason I would welcome notes from any observer who has records of Wandering Albatrosses flying with the feet retracted. In the future perhaps observers could pay particular attention to this point in at-sea observations.

Royal Albatross

The two subspecies of the Royal Albatross can be distinguished from each other at sea as described below.

Southern Royal Albatross

2(a) Juvenile birds

Juvenile and immature Royal Albatrosses of the southern subspecies *Diomedea e. epomophora* resemble adults. They do not undergo the complex transitionary plumage stages of the Wandering Albatross. The upperwing often shows indistinct white elbow patches (as does the Wandering Albatross). But note that the trailing edge is darker than the leading edge. At close range the forewing is a delicate mixture of grey vermiculation and white freckles, quite unlike the heavy blotches of the Wandering Albatross. There is normally darker markings on the lower back. From below all Royal and Wandering Albatrosses look alike but the former lack the dark sides to the tail and grey vermiculation on the breast.

2(b) Immature birds

The lower back whitens with the upperwing whitening from the leading edge (not the centre of the wing as in the Wandering Albatross).

2(c) Adult stage

Whilst adults of the northern subspecies *D. e. sanfordi* (c.f. 2(d) Plate 2) can easily be separated from the Wandering Albatross of all ages, the predominantly white males of *D. exulans* and *D.e. epomophora* are not so readily separated. Most text books make reference to the dark line along the cutting edge of the upper mandible in the Royal Albatross. I have found that it is often impossible to see this dark line at ranges in excess of 500 metres even in good light. The process of identification between these "old male" types has been

WANDERING ALBATROSS
Stage 1d and 1e
Photo: Peter Harrison

SOUTHERN ROYAL ALBATROSS
Note retracted feet position and white tail
Photo: Peter Harrison

discussed above (see Wandering Albatross stage 1(f)).

Northern Royal Albatross

2(d) Adult and immature birds

The northern subspecies *D. e. sanfordi* is very distinctive. The upper wings are entirely black which contrast strongly with the white back. A Wandering Albatross with wings as dark as this would have pronounced markings on the back, breast and crown, additionally the tail would be mainly black. Females and immatures of the *sanfordi* race do, however, occasionally show brown feathers on the crown and tail but never to the same extent as in the Wandering Albatross, which by comparison looks much dirtier.

Notes on behaviour

Generally there is little difference between the two species. Flight and position of wings are the same in given wind conditions. Royal Albatrosses however, are shyer and do not normally follow ships, unlike the Wandering Albatross which will zig-zag back and forth over the ship's wake for many miles. Even around the New Zealand trawlers I have noticed that Royal Albatrosses rarely approach closely. The Wandering Albatross on the other hand, is an active participant in the melee for offal.

Conclusion

Except for the final stage of plumage, at-sea identification of Royal and Wandering Albatrosses is a relatively simple task. Present published literature overcomplicates the identification process and makes no reference to the different ways in which the upper wing of the two species whitens with age. Further field work is required to test whether the Wandering Albatross flies with feet extended at all times. I would welcome notes from observers who have records of Wandering Albatrosses with feet retracted in flight.

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POSTSCRIPT

Since first being published in 1979 observations have now confirmed that the difference in the upperwing whitening sequence of *Diomedea exulans* and *D.e. epomophora* is a crucial identification factor. Position of feet is now known to be a variable characteristic as both species occasionally fly with the feet retracted from view. This seems to be partially governed by thermo regulation and aerodynamic considerations. The northern race of Royal Albatross *D.e. sanfordi* is now also known to have a diagnostic underwing, the dark margin near the carpal being more variable and extensive than in either *D. exulans* or *D.e. epomophora*. Figure 1 shows this feature and compares underwing and tail patterns of the three. It should be noted that neither race of Royal ever have black sides to the tail as found commonly in the Wandering Albatross. The underwing of *D.e. sanfordi* is well shown in "Southern Albatrosses and Petrels" by Harper and Kinsky, page 19 (photo).

The recent appearance of no less than three Royal Albatrosses in the southern Atlantic Ocean (J. C. Sinclair pers comm) seems to confirm that these birds, as suggested in my original article, pass South Africa en route for New Zealand. No doubt as more observers become familiar with the identification technique reports in this region will become more widespread.

Fig. 1

Peter Harrison, 10 Broad Park Road, Peverell, Plymouth, S. Devon.

SEA REPORT SHEETS—LANDBIRDS

Analysis by Commander M. B. Casement, R.N.

The following sea reports of landbirds seen at sea were received during 1979/80. Extracts are shown in the relevant sections using the observer's initials.

Captain P. W. G. Chilman, M.N.	
S.S. *Litiopa*	5 Oct-19 Dec 77
S.S. *Leonia*	31 Jul-7 Sep 78
	and 2-20 Oct 78
C.P.O. T. H. Hunter, R.N.	
H.M.S. *Falmouth*	9 May-24 Nov 79
Chief Officer P. G. Morris, M.N.	
M.V. *Alain*	6 Sep-19 Oct 79
Captain K. Salwegter, Neth.M.N.	
M.V. *Amstelmeer*	Sep 79
M.V. *Davao*	Aug 79
D. J. Radford/M. J. Gibbons	
Passage by Ferry Santander-Plymouth	16-17 Oct 79
Cadet T. M. Barry, M.N.	
M.V. *Kinpurnie Universal*	29 Jan-Apr 80
M.V. *Clan Macgregor*	18 Nov-1 Dec 79
Radio Officer M. G. Finn, M.N.	
S.S. *Devonbrook*	7 Jul 80 and 28 Aug 80
Third Officer A. R. Louch, M.N.	
R.R.S. *Challenger*	12 May-5 Jun 80
R.R.S. *Shackleton*	20 Aug-21 Sep 80
Mrs C. Roberts	
M.V. *Fjord Liner*	8-25 Apr 80
	25 Jun-24 Jul 80
M.V. *Corral*	15-22 Nov 80
Captain R. L. Westwater, M.N.	
M.V. *Davao*	9 Aug-24 Sep 79
M.V. *Bayano*	5 Apr-7 May 80
Chief Engineer K. E. Hart, M.N.	
S.S. *Godinia*	19 Feb-5 May 80
Engineer S. J. Hingston, M.N.	
S.S. *Sugar Trader*	3 Mar-2 Sep 80
First Officer R. P. Harris, M.N.	
S.S. *Lundy Shore*	29 Aug-20 Sep 80
Radio Officer W. Weitkovitz, M.N.	
M.V. *Fuerte Ventura*	4 Dec 79
M.V. *Andalusia*	17 Jul-25 Aug 80
Captain D. M. Simpson, M.N.	
M.V. *Pacific Worker*	15 Aug-30 Sep 80
M.V. *Bigorange XI*	12-18 Oct 80

Twelve bird "examined in the hand" reports were received during the period—six from PWGC, three from SJH, two from DMS and one from CR.

The analysis has been carried out in the same way as previous years including records from Sea Report Sheets, extracts from

Meteorological Logs and personal letters. In an effort both to save space, and to make it more readable than the rather indigestible tables, it is presented in a narrative style. In order that direct comparisons can be made with the tables in previous *Sea Swallow*s the various sections cover the same sea areas as follows:

Section A	East Atlantic (East of 30°W), including Biscay and Iberlant.
Section B	North Sea, including Skaggerak and White Sea.
Section C	West Atlantic (West of 30°W), and South Atlantic.
Section D	Gulf of Mexico.
Section E	Mediterranean.
Section F	Red Sea and Gulf of Aden.
Section G	Indian Ocean.
Section H	Persian Gulf and Gulf of Oman.
Section I	Pacific, Philippine Sea and South China Sea.

SECTION A
EASTERN ATLANTIC

PWGC recorded a wide variety of autumn migrants whilst on passage from the Mediterranean to Nigeria and return in 1977:

Off West Africa.

8 Oct. Swallow *Hirundo rustica* (juv). 22°39′N 17°33′W. 50′W Spanish Sahara. Wind ENE/4. b.

9 Oct. Wheatear *O. oenanthe* (F or juv). 15°22′N 18°05′W. 54′NW Dakar. Wind NE/2 b.

Whitethroat *Sylvia communis* (F). S. Catching insects.

15-17 Oct. Whilst at anchorage 11nm offshore Forcados the following were noted on board:

Bee-eater *Merops apiaster* (8), *flava* Wagtail *Motacilla flava*, Spotted Flycatcher *Muscicapa striata* (3-4), Pied Flycatcher *Ficedula hypoleuca* (F), three species of *Hippolais* Warblers—Melodious Warbler *H. polyglotta* (3), probable Icterine Warbler *H. icterina*, and probable Olivaceous Warbler *H. pallida*. Also Willow Warbler *P. trochilus* and Chiffchaff *P. collybita* (3), Garden Warbler *Sylvia borin* Great Reed Warbler *Acrocephalus arundinaceus*.

28 Oct. Garden Warbler. 33°48′N 14°02′W. 325′SW C. St Vincent, 180′NE Madeira. Wind NE/3 bc.

29 Oct. Barn Owl *Tyto alba*. 37°16′N 12°49′W. 185′W. C. St Vincent. Wind N/2 bc. S. briefly.

Off West Africa again, 15-17 Nov 77, PWGC recorded several species including:

Blackcap *Sylvia atricapilla*, Redstart *P. phoenicurus*, Willow Warbler (3 on 16 Nov in position 09°48′N 17°05′W, 90′SW Guinea Bissau), also an Alpine Swift *Apus melba* and several Swallows. As frequently reported by ships on this route, several falcons were seen including Lesser Kestrel *Falco naumanni* which stayed for 3 days but died on 17th, and at least two Kestrel *F. tinnunculus*. The latter were observed catching locusts and dragonflies and eating them on the wing.

Similarly, on 2 May 79 a female Lesser Kestrel was recorded on board MV *Singularity* (MET) in position 37°25′N 20° 3′W (200′E Azores) and stayed for 2 days travelling 034° at 12kts before transferring to an overtaking Russian factory ship.

Hitch-hiking in the opposite direction 11-19 May was a Turtle Dove *Streptopelia turtur* on board MV *Booker Vanguard* (MET) from offshore NW Scotland to a position off the Azores; a distance of 3000 miles.

On 11 Jul a Whimbrel *Numenius phaeopus* was on board MV *Strathdirk* (MET) in position 36°30′N 22°12′W (15′ESE Azores).

On 22 Aug SJH was 26′SW C. de Sines (Portugal) and recorded 2 Robin *Erithacus rubecula* feeding on flies and moths, also a Redstart (juv M) and a brief glimpse of a possible Serin *Serinus serinus*.

On 10 Sep a Kestrel Sp. was on board MV *King Alfred* (MET) in position 36°N 10°W (85′SW C. St Vincent). It stayed on board overnight and caught several small birds before departing towards C. Espartel (N. Africa).

On 2 Oct PGM reported a Robin 20°N 15°30′W (45′S Canary Is), and on 4 Oct a Lanner Falcon *Falco bearnicus*, and a Whitethroat, in position 16°45′N 18°09′W (55′W Mauretania). The wind was NE/3.

On 5 Oct PGM saw a Little Egret *Egretta garzetta*, 12°44′N 18°11′W (70′W Gambia), and two more of the same species were recorded on 13 Oct on board MV *Erskine Bridge* (MET) in position 44°21′N 31°24′W (170′NW Azores).

On 16-17 Oct DJR/MJG recorded the following species on board while crossing the Bay of Biscay by Brittany Ferry from Santander to Plymouth:

Robin (50 approx), Redstart *P. ochrurus* (3F,1M), Turtle Dove (2), 'Willow/Chiff'' *Phylloscopus sp.* (5), Song Thrush *Turdus philomelos* (1), Meadow Pipit *Anthus pratensis* (2). 2 Robin and 1 Chaffinch *Fringilla coelebs* were found dead on 17th.

Between 1300-1525 on 16th 90 Skylark *Alauda arvensis* passed flying S. and between 0820-0950 on 17th the following passed flying S: Skylark (14), Starling *Sternus vulgaris* (2), Meadow Pipit (3) and finch Sp. (4).

On 22 Nov a Long-eared Owl *Asio otus* was on board for 30 mins SS *Pollenger* (MET) in position 38°30′N 21°10′W (220′E Azores).

A very late migrant House Martin *Delichon urbica* was recorded by WW in position 38°43′N 12°03′W (150′W Lisbon) on 4 Dec 79.

On 22 Jan 80 SS *British Pioneer* (MET) reported a Lesser Kestrel (F) in position 2°10′N 13°25′W (300′SW Monrovia), and 4 Cattle Egret were on board for 1 hr on 23 Jan in position 5°30′N 15°40′W (240′SW Freetown).

On 1 Apr TMB was in position 23°N 17°30′W (70′W Spanish Sahara) and recorded Turtle Dove, Swift/Pallid Swift *A. apus/A. pallidus*, Swallow and a *phylloscopus* warbler.

On 3 May MV *Shonga* (MET) recorded Swift, Turtle Dove and a racing pigeon in 39°N 11°W (90′W Portugal).

From 12-16 May ARL was operating in the area 55°N 12°W (80′NE Eagle Island, N. Ireland) and the Porcupine Bank area and recorded the following waders passing in a northerly direction: Turnstone *Arenaria interpres* in summer plumage (on 12th), Dunlin *Calidris alpina* (on 13th), and a Curlew *Numenius arquata* (on 15th). On 27 May in the same area a Collared Dove *Streptopelia decaocto* was seen, and departed in a SE direction.

On 3 Jun a Dunlin was sighted in position 57°46′N 09°09′W (100′W St Kilda) and on 5 Jun (17′N Barra Hd. - 56°20′N 07°24′W) two Collared Doves and a Swallow were recorded departing Easterly.

On 8 Sep SS *British Explorer* (MET) had a Turnstone on board in position 24°N 16°52′W (70′W Spanish Sahara). The wind was N/4. It was fed cereals and sardines but was found dead on 17th.

On 29 Sep WW recorded a Wheatear (F) and a Red-breasted Flycatcher *Ficedula hypoleuca* in the Bay of Biscay, off C. Finisterre. Wind N/2.

SECTION B
NORTH SEA, INCLUDING SKAGGERAK, AND WHITE SEA

On 30 May 80 MV *British Maple* (MET) was in position 57°30′N 9°18′E (30′NE Jutland) and recorded a heavy "fall" of birds in poor visibility (½ nm)

including Red-backed Shrike *Lanius collurio* (M), several Robins *Erithacus rubecula*, *"flava"* wagtails, also "warblers" and "pigeons". When the wind increased to Force 6 westerly, the birds disappeared.

On 20 Aug ARL was operating in the area 56°N 02°30′E (150′NE Farne Is). The visibility had been poor for the previous 24 hrs with wind SE/4 and the following species were observed:

Robin, Wood Warbler *P. sibilatrix* (2), Willow/Chiff *P. trochilus/P. collybita* (3), Whitethroat *Sylvia communis* (2), Wheatear *Oenanthe oenanthe* (F), Dunlin *Calidris alpina* (3) - 2 circled, one settled - very tame; Golden Plover *Pluvialis apricaria* (circled calling), Ringed Plover *Charadrius hiaticulus* (3).

On 29 Aug RPH was operating in the Montrose Oilfield in position 57°28′N 1°24′E (110′E Peterhead) and had a Common Sandpiper *Tringa hypoleucos* on board for one hour. Next day two Golden Plover circled his ship.

On 4 Sep RPH was again in the same area and recorded 3 Meadow-Pipit *Anthus pratensis*, one of which was found dead next day. On 5 Sep when 10′ off Aberdeen, a Pied Wagtail *M. alba* was on board, and a Pied Flycatcher *Ficedula hypoleuca* was found asleep in the winchhouse.

On 5 Sep ARL recorded a juvenile Knot *Calidris canutus* in winter plumage in position 58°53′N 02°27′W (20′E Duncansby Hd). Next day, when 60′E Orkney (59°02′N 00°53′W) a White Wagtail *M.a.alba* was on board for 10 mins and departed S. On 10 Sep ARL recorded a Corn Bunting *Emberiza calandra* and a Meadow Pipit (position 57°11′N 00′W 60′E Aberdeen).

On 15 Sep RPH had a Goldcrest *Regulus regulus* on board for 30 mins in position 100 SE'Aberdeen, and on the same day ARL recorded a Chiffchaff and a Spotted Flycatcher *Muscicapa striata* in position 58°N 00°30′W (30′NE Peterhead).

On 18 Sep ARL recorded a Mistle Thrush *Turdus viscivorus* on board for 3 hrs in position 58°02′N 1°58′W (20′N Kinnaird's Hd).

On 20 Sep RPH recorded a Blackcap *Sylvia atricapilla* (F) and a Redstart *P. phoenicurus* (F) on board in thick fog in position 56°31′N 02°17′E (130′E Montrose).

On 21 Sep ARL was 15′E Kinnaird's Hd (57°45′N 01°15′W), also in thick fog, and recorded: Dunlin (C. 4 times, dep W), Chiffchaff (S. 2 hrs), Starling *Sturnus vulgaris*. Next day when 10′ off Northumberland coast 4 Chaffinches *Fringilla coelebs* (2 found exhausted in wheelhouse) and 3 Corn Bunting were taking refuge in thick fog and departed when in sight of land.

Two records of high interest from an area rarely visited were noted in the Met. log of MV *Singularity* in the White Sea in position 69°40′N 34°00′E, with excellent drawings and photographs of a Gyr Falcon *Falco rusticolus* on 15 Sep 80, and a Tengmalm's Owl *Aeolius funereus* on 17 Sep 80.

SECTION C
WEST ATLANTIC AND SOUTH ATLANTIC

The highlight during 1978 is the remarkable experience of Captain Chilman - see his separate article on page 40. The following records are also of interest:

On 31 Jul 78 PWGC reported a Willet *Catoptrophorus semipalmatus* on board for 10 hrs in position 16°40′N 58°36′W (153′E of Guadaloupe) and on 1 Aug an unidentified wader flying SE at 50 ft in position 240′NE Barbados. On 9 Aug RLW recorded a Kirtland Warbler *Dendroica kirtlandii* 15′E of Cape Hatteras.

In 1979 a series of individual Met. Log reports recorded a number of migrant species remarkably similar to PWGC the previous year including:

On 21 Jun a juvenile Purple Gallinule *Porphyrio porphyrio* was on board MV *Ripon Grange* in position 29°47′S 47°11′W (950′E Bermuda). On 26 Sep 3 Burrowing Owls *Speotyto cunicularia* stayed 5 hours on board MV *Erskine Bridge* in position 26°N 79°W (60′E Florida).

On 9 Oct an Ovenbird *Seirus aurocapillus* took passage on board MV *Balmoral Castle* from a position 500′S Bermuda until arrival Puerto Cabello (Venezuela). Numerous unidentified warblers were seen when passing through the S. Mona Passage.

On 11 Oct a Peregrine Falcon *Falco peregrinus* arrived on board MV *Orbita* in position 39°50′N 43°10′W (500′SE C. Race) and stayed 3 days until 240′ENE Bermuda on 14th. It caught and ate a number of small birds.

On 13 Oct a Yellow-billed Cuckoo *Coccyzus americanus* was on board MV *King Alfred*, in position 39°08′N 64°44′W (500′SE C. Cod) having been there since leaving Norfolk, Va.. Also recorded was a Woodcock *Philohela minor* and an unidentified species of "wren". Two unidentified "herons" were reported by SS *Pollenger* heading west on 28 Oct in position 42°13′N 64°38′W (80′SE C. Sable, Nova Scotia).

In 1980 several spring migrants were recorded: A Palm Warbler *Dendroica palmarum* was found on 19 Apr in a flag locker and remained 4 hrs on board MV *Rupert City* (24°N 74°W - 10′ off San Salvador, Bahamas). On 20 Apr a Great White Heron *Ardea occidentalis* was on board MV *King Charles* all day and was carried 300 miles east from 36°57′N 67°49′W (390′ENE Cape Hatteras). On 19 May an Osprey *Pandion haliaetus* was reported on board MV *Trench Bank* in the Caribbean 110′N Swan Is.

On 7 Jun MGF reported a Brown-headed Cowbird *Malathrus ater* on board in position 38°48′N 69°06′W (180′SE Cape Cod).

On 12 Oct, in position 22°30′N 63°40′W (600′S Bermuda, 230 N Virgin Is), 3 Purple Martins *Progne subis* arrived in an exhausted state on board MV *Pacific Swan* after heavy storms and a waterspout. One died.

In the South Atlantic, 2 Wood Storks *Ibis ibis* settled on board M.V. *Grey Warrior* in position 33°40′S 16°13′E (70′W Cape Town) and remained for 3 hours.

SECTION D

GULF OF MEXICO

On 17 Aug 78, RLW recorded a Northern Waterthrush *Seirus noveboracensis* on board for 30 mins in the wheelhouse in position 24°42′N 89°26′W (280′S Coast of Louisiana) and on 24 Aug a Prothontary Warbler *Protontaria citreo* on arrival Cristobal (Panama Canal).

During the period 5 April-7 May 1980 RLW recorded a useful sample of spring migrants crossing the Gulf of Mexico including:

American Kestrel *Falco sparverius* on 5 Apr when 180′ north of Guatemala which tried to land on the mast, and also the first Barn Swallow *Hirundo rustica* of the year. Further Barn Swallows were seen on 30 Apr (2), 1 May (up to 12) and 4 May (4). A Great Egret *Casmerodius albus* was on board for 6 hours on 20 Apr in position 19°39′N 80°49′W (25′E Yucatan), and another was sighted flying north on 3 May in position 20°40′N 87°50′W (100′S Louisiana) and another on 7 May in a similar position. Other herons included a Green Heron *Butoroides striatus* which circled for 30 mins on 20 Apr (18°38′N 87°00′W - 40′E Guatemala), and a Cattle Egret *Bubulcus ibis* on 3 May.

A wide variety of warblers were identified by RLW including:

Blackpoll Warbler *Dendroica striata* - on 23 Apr (1) and 3 May (1M, 1F), and 7 May (2M, 2F); Black and White Warbler *Mniotilta varia* - on 23 Apr (1) and 3 May (1); Palm Warbler *Dendroica palmarum* and Yellow Warbler *Dendroica petechia* on 1 May a male Black-throated Blue Warbler *Dendroica caerulescens* together with a

Cape May Warbler *Dendroica tigrina* and a Common Yellowthroat *Geothlypis trichas* on 3 May. A Warbling Vireo *Vireo gilvus* was recorded in the Central Bay of Mexico on 23 Apr, also 2 Nighthawk *Chordeiles minor* and several unidentified warblers on 1 May in position 28°30'N 88°18'W. 2 Ovenbird *Seiurus aurocapillus* were on board on 3 May, one staying overnight, and a Grey Catbird *Dumatella carolinensis*, together with a Cerulean Warbler *Dendroica cerulea* on 7 May in position 27°28'N 87°55'W.

SECTION E
MEDITERRANEAN

The Mediterranean is probably the best documented sea area as will be seen from back numbers of *Sea Swallow*. Turtle Dove *Streptopelia turtur* is one of the most commonly reported species as are *flava* Wagtails and hirundines, both in spring and autumn. The Kestrel *Falco tinnunculus* is also regularly reported, especially in autumn, crossing by day along almost the whole length and breadth of the Mediterranean.

From a large selection of Met. Log reports and also members' report sheets I pick out the following highlights.

CPO T. H. Hunter recorded 2 Swifts *Apus apus* crossing "the narrows" between Cape Bon and Sicily, flying east on 18 May 79 and as described in his article on page 12 a Little Crake *Porzana porzana* when in the Ionian Sea on 19 May (position 36°30N 17°30'E - 100'SE C. Spartivento). On the same day he saw a Little Egret *Egretta garzetta* heading SW and on 22nd several *flava* Wagtails (probably Blue-headed) were seen following the ship when 90'SW Zante.

These observations are of special interest to me as yet further evidence of what I found in 1960 and in subsequent years, that migration takes place across the Mediterranean on a broad front, including the longest sea crossing, the Ionian. This is regularly recorded in autumn but less often in spring.

On 12 Sep a Nightjar *Caprimulgus sp* was reported on board MV *King Alfred* for several hours in the western Med, 15'N, Algerian coast. On 17 Sep PGM reported 2 Bittern *Botaurus stellaris* on board briefly when anchored off Zuetina (Libya), and on 25 Sep when in the Gulf of Sidra (70 N/Libyan coast) he recorded a Grey Heron *Ardea cinerea*, Housemartin *Delichon urbica* and at least 10 Turtle Doves. On 26 Sep PGM reported a passage of unidentified pipits when 45'S of Malta, and on 28 Sep he photographed several birds which proved to include a Moorhen *Gallinula chloropus* and Robin *Erithacus rubecula*.

On 5 Oct 17 egrets (species NK) were recorded by MV *Silvermain* flying south in position 34°30'N 21°47'E (95'SW Crete) and 7 Oct another group of 29 in position 37°32'N 9°43'E (15'N Bizerta).

On 11 Oct RRS *Shackleton* recorded a wide variety of species in the Tyrrhenian Sea in position 39°35'N 12°20'E (90'N Cape St Vito, Sicily) during heavy rain and thunderstorms. Species included an unidentified falcon, which stayed on board for 3 hrs, Redstart *Phoenicurus phoenicurus*, Wheatear *Oenanthe oenanthe*, Swallow *Hirundo rustica*, Stonechat *Saxicola torquata*, Skylark *Alauda arvensis* (5), White Wagtail *Motacilla alba*, and Yellowhammer *Emberiza citrinella*, and Meadow Pipit *Anthus pratensis*.

On 12 Oct in position 32°26'N 29°11'E (90'NNW Alexandria) MV *Nessbank* (MET) recorded Lesser Whitethroat *Sylvia curruca*, Quail *Coturnix coturnix*, and Swallow (6) - all identified by D. J. O Duffy. Next day when 95'SW Crete (34°14'N 22°04'E) he identified Chiffchaff *Phylloscopus collybita*, Redstart (4), Red-breasted Flycatcher *Ficedula parva* (1M, 3F), Blackcap *Sylvia atricapilla* (F) and an unidentified "buzzard" species which landed briefly and then departed north.

On 16 Oct a Nightjar *Caprimulgus sp* was on board SS *Osaka Bay* for 5-6 hrs when 75'NW Alexandria, also a juvenile Redstart.

On 20 Oct a Short-toed Eagle *Circaetus gallicus* came on board SS *Jervis Bay* (MET) when off Ibiza after a NW gale and remained on the foremast for 2 days. It then fell from its perch and was revived in the seamen's messdeck. When 10′ off Ushant on 23rd it was released and flew off towards land.

In May 1980 MV *British Commerce* recorded a number of *flava* Wagtails on board "feeding on cotton waste and moths" in the Gulf of Taranto (20′S of Italy) on 1 Apr. They included 6 identified as Grey-headed *M. f. cinerea* and 2 Blue-headed *M. f. flava*.

On 1 May 2 Night Heron *Nycticorax nycticorax* arrived on board SS *Pollenger* (MET) in position 38°11′N 3°22′E (70′SE Majorca). Many other small birds were also around. The herons were fed on raw fish but one died after 2 days apparently after injuring itself in flight.

SJH recorded some autumn migrants including Song Thrush *Turdus philomelos* (3) on 19 Aug in position 37°35′N 9° 52′E (15′N Cape Blanc, Tunisia). They arrived from the north at 1630 in good visibility and sun. Wind WxN/3. On 20 Aug he witnessed a steady light movement of migrants from late a.m. until 1800 when 65′N of C. Bengut, Algeria. Species identified were Redstart (3 juv), Willow Warbler *Phylloscopus trochilus* (3), Melodious Warbler *Hippolais polyglotta* (3), Icterine Warbler *Hippolais icterina*, Savi's Warbler *Locustella luscinoides*. A probable Olivaceous Warbler *Hippolais pallida* was seen briefly, and another which was either a Reed Warbler *Acrocephalus scirpaceus* or Marsh Warbler *A. palustris*.

On 30 Sep WW in the central Mediterranean (34°39′N 20°52′E - 85′SW Crete) recorded an Isabelline Wheatear *Oenanthe isabellina*, Robin, Pied Flycatcher *Ficedula hypoleuca* (2), and 2 Grey Heron were sighted flying south.

SECTION F
RED SEA AND GULF OF ADEN

On 9 Aug 79 SJH recorded 5 Swallow *Hirundo rustica* flying WSW in the Gulf of Aden (48′N Somalia) and on 11 Aug in S. Red Sea noted 2 Isabelline Wheatear *Oenanthe isabellina*. Further north next day he saw a Little Egret *Egretta garzetta* flying NNW.

TMB had a Sandmartin *Riparia riparia* on board for 5 hrs on 11 Aug 79 in position 16°32′N 40°58′E. On 2 Oct a probable Tawny/Steppe Eagle *Aquila rapax* took passage all day on MV *Anco Champion* (MET) proceeding north in the Red Sea and departed in the vicinity of Hamish Is.

On 13 Oct an owl thought to be either a Barn Owl *Tyto alba* or a Marsh Owl *Asio capensis* was recorded, together with 2 small unidentified "hawks".

Two spectacular species regularly recorded by ships transitting the Red Sea are Hoopoe *Upupa epops* and Bee Eater *Merops apiaster*. Hoopoes were recorded, together with a Night Heron *Nycticorax nycticorax* by SS *Exeter* on 3 Feb 80 and by WW on 25 Aug 80. Bee Eaters featured in the Met. Logs of SS *Liverpool Bay* (29 Apr 80), MV *Strathdevon* (on 6 Sep in the Gulf of Aden) and MV *Overseas Adventurer* (on 5 Nov SWxW of Jeddah).

On 7 Apr 80 a European Kingfisher *Alcedo athis* was recorded by MV *Wild Flamingo* (MET) in N. Red Sea.

SECTION G
INDIAN OCEAN

On 29 Nov 77 PWGC recorded a juvenile male Golden Oriole *Oriolus oriolus* in position 26°47′S 36°06′E (135′SSW Mozambique), and on the following day, when 130′W of Madagascar, a juvenile Swallow *Hirundo rustica*. On 19 Dec 77 he also recorded a Kestrel *Falco tinnunculus* (F or juv) 155′ESE Somalia in position 07°43′N 52°44′E.

On 29 Aug PWGC noted a Turnstone *Arenaria interpres* in summer plumage which circled his ship in position 02°58′N 51°12′E (215′ESE Somalia).

On 14 Sep 79 PWGC recorded several Yellow Wagtail *Motacilla flava* on passage Sri Lanka to Sumatra and found one dead.

On 6 Nov 79 TMB recorded a Blue Rock Thrush *Monticola solitarius* on board until dark in position 17°57′N 87°35′E (140′SE India) in the Bay of Bengal.

On 17 Nov 79 TMB reported an Indian House Crow *Corvus splendens* on board when leaving Columbo which remained until 23 Nov when it departed in the Southern Red Sea. On 18 Nov he recorded a Hobby *Falco subbuteo* which departed north, and a Whimbrel *Numenius phaeopus* exhausted on board for 2 days; ship's position 8°N 74°E (60′SE Minkoi Is - Maldives).

During the period 5-15 Oct 80, DMS observed the following species in Bombay High Oilfield (19°34′N 77°20′E - 90′NW Bombay and 73′South of nearest land) on board his oilwell stimulation vessel (known locally as an "acid" boat).

Indian Pond Heron *Ardeola grayii* 2 on 12th, 4 on 13th.

Little Egret *Egretta garzetta* 7 on 13th.

Western Reef Heron *Egretta gularis* 1 on 15th.

Pariah/Red Kite *Milvus migrans* ? 1 dep N on 7th.

Hobby (prob) 1 male flying NW at 80 ft on 9th.

Kestrel *Falco tinnunculus*. One F arr. 3 Oct in Arabian Sea 22°13′N 63°37′E and dep. on 5th on arrival oilfield. It was seen swooping on flying fish but without success.

Quail *Coturnix coturnix* on 5th.

Houbara Bustard *Chlamydotis undulata*. One landed in the sea exhausted on 7th and was photographed, swimming apparently.

Scops Owl (probably Collared) *Otus bokkamoena*. One on 15th.

Rufous-backed Shrike *Lanius schack*. One on 7th, 2 on 11th, one on 13th.

prob. White Thrush *Zoothera dauma*. One briefly on 9th.

prob. Red-tailed Wheatear *Oenanthe xanthoprymna*. 2(F) on 7th catching insects.

prob. Paddyfield Warbler *Acrocephalus agricola*. One on 8th, 11th and 14th.

prob. Booted Warbler *Hippolais coligata*. One on 9th.

Red-breasted Flycatcher *Ficedula parva*. One (F) on 11th, one (F) on 13th.

Common Rose-finch *Carpodacus erythrinus*. One juv on 11th.

Golden Oriole. One juv on 13th.

Black Drongo *Dicrurus macronexus*. One on 13th, one all day 15th.

Also recorded were *flava* Wagtail (1), Grey Wagtail *M. cinerea* (1), Hoopoe *Upupa epops* (2), several Swallows, and unidentified pipits *Anthus Sp.*, Swift *Apus Sp.* and a Snipe *Gallinago Sp.*

Other autumn migrant records in 1980 included:

On 18 Oct, 400′SE of Socotra in position 11°N 60°30′E a *flava* Wagtail was on board SS *British Unity* (MET), in good condition and flying strongly. I never cease to be amazed how frequently this species is recorded far from land on long overseas passages for such a small and apparently fragile-looking bird.

On 22 Oct a falcon, almost certainly a juvenile Peregrine *Falco peregrinus* was on board SS *Osaka Bay* (MET) in position 11°42′N 52°54′E (65′SW Socotra).

On 28 Oct a Paradise Flycatcher *Tersiphone paradisi* (F) was observed on MV *Overseas Adventurer* in position 6°50′N 76°24′E (94′SW C. Comoron - Southern tip of India).

On 16 Nov WW recorded Desert Wheatear *Oenanthe deserti* (2M, 1F) in position 08°07′N 50°48′E (70′SE Somalia). On 18th when 300′SE Mozambique a Whimbrel *Numenius phaeopus* and on 19th a Swallow were on board briefly in position 09°18′S 43°33′E (180′SE Cape Delgado).

On 20 Nov WW recorded a juvenile Peregrine on board for one day off Mozambique. It was seen to catch and eat a Lesser Crested Tern *Sterna bengalensis* and a Sooty Tern *Sterna fuscata*.

SECTION H
PERSIAN GULF AND GULF OF OMAN

There were fewer reports from this area than in many previous years but several interesting species were noted including:

On 2 Sep 78 PWGC, in position 23°03′N 59°37′E (22′ENE Oman) recorded a Red-backed Shrike (eastern race) *Lanius collurio phoenicuroides*, Golden Oriole *Oriolus oriolus* (juv), Hoopoe *Upupa epops* (2) and a Snipe *Gallinago gallinago* (not certain. On 3 Sep he recorded Kestrel *Falco tinnunculus* (F), two Oystercatcher *Haematopus ostralegus* flying south, and a Reef Heron *Egretta gularis* was on board for 5 minutes before departing west. (Position: 20°04′N 54°29′E - 27′ south of Iran coast).

On 5 Sep PWGC noted the following species: 5 *flava* Wagtails, 4 Desert Wheatear *Oenanthe deserti*, Temmink's Stint *Calidris temminckii*, 2 Hoopoe and 2 Turtle Dove *Turtur streptopelia*.

On 4 Apr 79 PWGC was again in the same area and caught a Pied Wheatear *Oenanthe pleschanka* (M) in the wheelhouse chasing insects. Next day he was in position 29°13′N 50°27′E (6′ west of Kharg Island) and witnessed a spectacular passage of Bee-eaters *Merops apiaster*. Initially there were 3 on board p.m. 5th but by dusk of 6th there were at least 50 on board chasing insects, moths and dragonflies. One was picked up having flown into something during the night. MV *Cape Ortegal* also recorded a Bee-eater on board in the Straits of Hormuz on 6th.

The following note was received from Captain G. S. Tuck:

On 12 Feb 80 Mrs J. Kenefick, 1st Mate, writes "Our ship was anchored at Shat-al-Arab off the Tigris River on a particularly stormy day when a Pelican fanded on deck in an exhausted condition. It had oil on its underparts and elsewhere. We took the bird inside and filled a bath tub in the ship's hospital with about 6″ of warm soapy water and 'Swarfega' hand cleaner. Its beak was taped closed and one held it while I washed off the oil on its large bill with a rinse of the washing water. I then removed the tape from its bill. We took our 'soggy' bird to the warmth of the table tennis room and made it comfortable. Next day I carried it up to the ship's awning where it made a fine photograph (see plate). I found it docile and gentle allowing me to scratch its head and stomach." Captain Tuck identified it from the photograph as an Eastern White Pelican *Pelecanus onocratalus*.

In a letter to Mrs Effie Warr, Captain D. M. Simpson, M.N., provided a list of birds observed in the United Arab Emirates (UAE) during the period 15 Aug-30 Sep 80 while there serving in MV *Pacific Worker* and MV *Bigorange XI*. These observations contributed towards the *Check List of the Birds of the Arabian Gulf States* (see page 8). Included also was an observation at sea of a Bluethroat *Luscinia svecica* in position 24°53′N 53°46′E (40′N of UAE coast) on 23 Sep 80.

SECTION I
PACIFIC, CHINA SEA, YELLOW SEA AND PHILIPPINE SEA

This vast sea area is the least well documented section in *Sea Swallow* and landbird observations have not yet built up to form a recognisable migration pattern. The following records were received from members and Met. Logs during the period covered by this report.

26 Mar 79. SJH recorded 8 Swallows *H. rustica* off Taiwan (100′E Gadd Reef - 22°36′N 123°33′E). They arrived from WSW at 1630 and stayed until dusk.

On 14 Apr when in position 41°05′N 141°40′E (12′E Japan) SJH had 2-3 Chinese Great Grey Shrike *Lanius sphenocercus* on board. One was caught but bit a crew member!

On 30 Apr the Met. Log recorded a Petchora Pipit *Anthus gustavi* and a Red-necked Phalarope *Phalaropus lobatus* found dead on the helo pad on Tembungo oil platform in position 6°37′N 115°47′E (34′NW Sabah).

On 20 May SJH recorded a Dunlin *Calidris alpina* in breeding plumage which settled on board for 5 mins in a tired state during a gale WSW/10 in position 50°23′N 179°35′W (60′SW Aleutians). Next day another Dunlin also in breeding plumage arrived from the North and stayed for one hour in position 49°49′N 172°23′E (90′ S Amchitka Is - Aleutians).

On 26 May SJH was passing the Tsugaru Kaikyo Straits and recorded a passage of migrants including:

Japanese Lesser Sparrowhawk *Accipiter gularis* (Adult M), Siberian Rubythroat *Luscinia calliope* (3) and Oriental Whiteye *Zosterops palpebrosa* (3) which were on board all day. The Sparrowhawk caught a Rubythroat using a 45 gal oil-drum as a plucking post. It was subsequently caught in a store-room by a quick thinking ship's carpenter and examined in the hand. The Oriental Whiteyes made a strange musical (liquid) whistle. Between 1100-1200 about 1000 Swallows were counted flying very low NW in flocks of 20-100.. The weather was cloudy with patches of thick fog, wind NE/2. The Swallows were observed to veer away from the ship each time the fog-horn sounded.

On 27 May SJH was in the Sea of Japan, 34°08′N 134°45′E (105′WNW Minadjuhi Is) and recorded: Siberian Rubythroat (3M, 2F), Shrenk's Sedgewarbler *Acrocephalus bistrigiceps* (2 - one found dead and examined), *flava* Wagtail (6+), Thick-billed Warbler *Phragamaticola aedon* (2), *Phylloscopus* Sp (3) (either Lemon-rumped or Ashy-headed Warblers) feeding on flies, and 4 Oriental Whiteye.

On 16 Sep PWGC recorded an Eastern Crowned Warbler *Phyltoscopus coronatus* when passing through Malacca Straits (01°11′N 103°25′E).

On 23 Sep PWGC recorded a Crow-billed Drongo *Dicrurus annectans* which he caught, examined and released when in position 01°03′N 106°34′E (145′W Borneo, 12′ from nearest land Tokong Kemedi).

On 2 Dec a Long-eared Owl *Asio otus* was on board MV *Roachbank* (MET) in position 31°08′N 177°19′E (320′NW Midway Is). The wind was NE/5.

On 16 Feb 80 a Night Heron *Nycticorax nycticorax* was on board SS *Cardigan Bay* (MET) in position 15°30′N 113°E (240′E Vietnam).

On 19 Feb KEH noted 8 Tree Sparrows *Passer montanus* when in position 17°21′N 119°55′E (40′W Philippines) which remained on board for 3 hours. Next day 2 Swallows were on board briefly in position 9°23′N 117°07′E (90′W Talawan Is).

On 7 Apr KEH was 285′E Vietnam (28°48′N 113°54′E) and recorded a Brambling *Fringilla montifringilla* (which died and was examined), a Pale Thrush *Turdus pallidus* and a White-cheeked Starling *Sturnus cineraceus*. On 9 Apr KEH had a Little Heron *Butorides striatus* which remained overnight - position: 22°23′N 124°42′E (170′ENE Basri Is - Taiwan), and 2 days later on 11 Apr a Red Turtle Dove *Streptopelia tranquebarica* was on board for 2 hours in position 15°13′N 119°20′E (50′W Philippines).

On 25 Apr CR recorded a Golden Plover *Pluvialis apricarius* which came on board in position 27°20′N 130°40′E (80′E Amami Gunto Is) in overcast, rain and poor visibility. It subsequently died on 27th and was examined and photographed.

On 6 May 4 Cattle Egret *Bubulcus ibis* spent 2 days in an exhausted state on board SS *British Explorer* (MET) since leaving Ise Wen (Japan) and were carried SW to 28°48′N off Okinawa when they were swept off the ship in NW winds. Several hirundines (swallows and martins) were observed flying around all day on 7th. On 10 May a further 12 Cattle Egrets arrived on board in position 23°47′N 125°46′E (240′E Taiwan). The wind was increasing from NE and all were gone by a.m. on 11th.

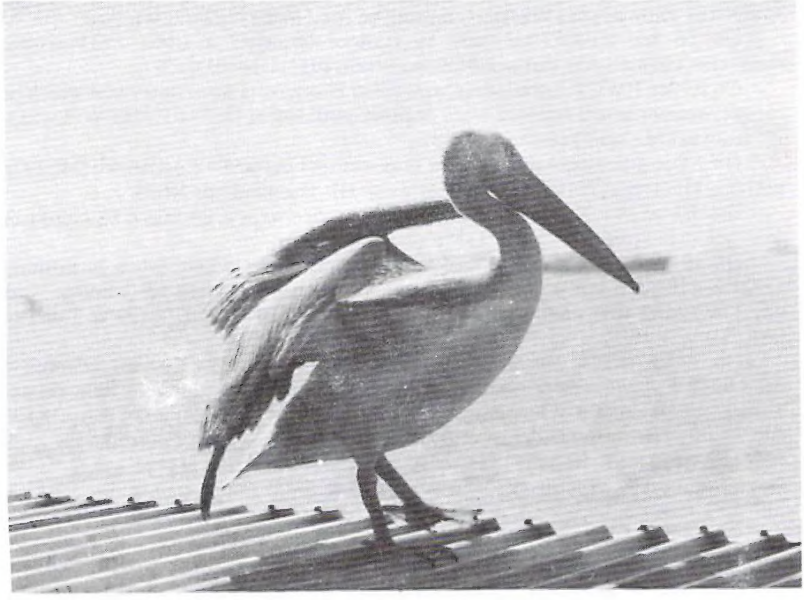
On 25 Jun CR recorded a species of Swift (prob. Silver-rumped Swift *Rhaphidura leucopygialis*) in position 8°30′N 110°15′E (250′E Saigon). It had a distinct white rump but no forked tail. On 24 Jul CR recorded a Turnstone *Arenaria interpres* in position 46°N 171°E (450′S Aleutian Is) which stayed on board for 4 days and left on 28 Jul.

On 20 Sep SS *Kowloon Bay* (MET) recorded 10 Swallows in position 31°22′N 127′E (200′S Korea, 130′W Japan) and on 22 Sep 2 prob. Lesser Kestrel *Falco naumanni* were on board for an hour in position 18°30′N 118°58′E (100′W Luzon).

On 14 Oct a probable Merlin *Falco columbarius* was on board MV *Ocean Adventurer* off the Catwick Is (10°N 109°E) and was twice seen to fly through the panama leads (8″ x 16″) (MET).

On 15 Nov CR was in position 34°30′N 112°30′W (20′SW Mexico) and observed a prob. Common Egret *Casmeroides albus*. On 17 Nov 18 egrets (Species not known) circled the ship in position 14°51′N 102°46′W (205′SW Acapulco). On 19 Nov she recorded an Osprey *Pandion haliaetus* in position 07°16′N 95°44′W (340′NNW Galapagos) which was on board for 14 hours. It was first sighted by a cadet taking a starsight as it crossed the field of view of his sextant at the crucial moment!

An unidentified falcon was also seen briefly.



EASTERN WHITE PELICAN *Pelecanus onocrotalus*
after treatment to remove oil, Persian Gulf
Photo: Mrs J. Kenefick

USEFUL ADDRESSES

Hon. Member and Advisor R.N.B.W.S. Dr W. R. P. Bourne, M.B.O.U., University of Aberdeen, Dept. of Zoology, Tillydrone Avenue, Aberdeen AB9 2TN.

R.N.B.W.S. Local Representatives

Devonport Area K. E. Partridge, 165 Stanborough Road, Elburton, Plymouth, Devon PL9 8NY. Tel. Plymouth 45475.

Portsmouth Area Lt. B. F. Witts, R.N., Oakwood, Duffield Lane, Woodmancote, Emsworth, Hants. Tel. Emsworth 71497 *or* H.M.S. *Excellent*, Ext. 5178; and Lt.-Col. P. J. S. Smith, R.M., 8 Fairthorne Gardens, Alverstoke, Gosport, Hants. PO12 3PO. Tel. Gosport 86909.

Portland C.P.O. T. H. Hunter, R.N., Fleet Maintenance Group, H.M. Naval Base, Portland. Tel. Portland Naval Base, Ext. 2373, *or* 48 St. Leonards Road, Weymouth, Dorset. Tel. Weymouth 76942.

Chatham Mr B. Vallance, R.N.X.S., 12 Chestfield Close, Rainham, Gillingham, Kent ME8 7DR.

Faslane C.P.O. R. G. Coulter, C.P.O.'s Mess, H.M.S. *Neptune,* Faslane, Helensburgh, Dunbartonshire G84 8HL.

Gibraltar Dr Clive Finlayson, M.B.O.U., 19 Warspite House, Varyl Begg Estate, Gibraltar.

Persian Gulf Major M. D. Gallagher, M.B.O.U., P.O. Box 246, Muscat. Tel. 600 . 267 or via 722482.

INSTRUCTIONS TO AUTHORS

Interested persons are invited to submit contributions for *Sea Swallow*. Authors do not need to be R.N.B.W.S. members. Material may take the form of papers, notes, progress reports, letters or reviews.

Manuscripts should be typed in double spacing and submitted in duplicate. Figures and diagrams should be prepared in the size of final production.

The style used in *Sea Swallow* should be followed, with the standard abbreviations, nomenclature and use of references as in *British Birds*.

Contributions are welcome at any time, but if for inclusion in the next edition, must reach the Editor by 1st October.